FEBRUARY - MARCH, 1964

The National Future Farmer

Owned and Published by the Future Farmers of America

Take on the big jobs ... take on the tough jobs ... you cut 'em down to size with The Automated Ones.

What's the toughest job you put your tractor to? Plowing, probably. Then try it with The Automated Ones! A touch on the Ferguson System quadrant sets the plow's working depth and draft—and from then on, depth is maintained automatically through 3-point linkage. Weight is transferred automatically to the rear wheels, too, when extra traction is needed. Comes some extra heavy going, you just flip the Multi-Power switch into LOW. Automatically you get extra pull-power, right on-the-go. Comes some slick going and a wheel spins, the Differential Lock gets you right through. All this and more—like Power Steering, Variable Drive PTO, power-adjusted wheels—is available on all The Automated Ones! And for comfort, you get the cushioned, shock-absorbing Float-O-Matic Seat on the MF 50, 65 and Super 90. The Automated Ones come with diesel power plants that are proved fuel savers. Or with economical gasoline engines. Go automated this year with the 3-plow MF 35 or 50, the 4-plow MF 65, or the big 5-plow Super 90! Massey-Ferguson Inc., Detroit, Mich.

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World's largest manufacturer of tractors and combines

4-plow Massey-Ferguson 65 Dieselmatic

Shift on-the-go at the flip of a switch

5-plow Massey-Ferguson Super 90

FIRESTONE FIELD & ROAD TRACTOR TIRES

OUTPULL TIRES PRICED $20...$50...$70 MORE*... OR YOUR MONEY BACK!

GUARANTEED IN WRITING...

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If, within 60 days of the date of purchase, the new Field & Road tire does not outpull any other replacement rear tractor tire you've ever bought, your Firestone Dealer or Store will (1) refund within 30 days thereafter the amount paid or (2) allow the amount paid in full credit on any other Firestone rear tractor tires. (This traction guarantee does not apply to special-purpose rear tractor tires used in rice and cane farming.) The new Firestone Field & Road Tractor Tire is further guaranteed against defects in workmanship and materials for the life of the original tread. This guarantee provides for replacement of same size and type of tire pro-rated on tread bar wear and based on list prices current at time of adjustment.

**Per tire.*

HERE'S WHAT FARMERS ACROSS THE COUNTRY SAY...

Kenneth Grove, Hanover, Penn.— "I saved close to $100 a set on Firestone Field & Road tires . . . and got more traction."

Melvin Beck, Lindsey, Ohio— "In the field and on the highway, my Field & Road tires have outworn two sets of other tires."

J. P. Hodges, Bennettsville, S. Carolina— "Field & Road tires beat the road wear problem, deliver more traction than others."

Bobby George, Frisco, Texas— "Field & Road tires give me the traction I need. They slip less than higher-priced tires."

Paul Rohlfing, Cleveland, Minn.— "They clean better and wear slower than other tires. I have two sets; will buy more as I need them."

Edward Beyer, Spring Valley, Wis. —"Traction is excellent. They show no uneven road wear. We'll replace with Field & Road."

Darrel Todd, Cherokee, Iowa— "Field & Road tires held and pulled in loose soil while a higher-priced new tire slipped."

Tom Cameren, Wilmer, Texas— "I used to wear out a set in one season. My Field & Road tires will last 50% longer. More traction."

Louis Bottrel, Hopewell, New Jersey —"I bought Field & Road tires for extra traction. They ride smooth on the highway, too."

Edward Dill, Platteville, Colo.— "Field & Road tires pull better in mud and sand. On hard dirt they'll do twice what other tires do."

Robert J. Thomas, Clinton, Ill.— "We do a lot of 'roading' and Field & Road tires wear much longer. Good traction. Come up clean."

Joseph Young, Graham, Alabama —"I'm well satisfied with the traction. Field & Road tires take hold, let the tractor pull through."

Firestone

YOUR SYMBOL OF QUALITY AND SERVICE

The National Future Farmer
Owned and Published by the Future Farmers of America

FEBRUARY-MARCH, 1964

THE MAGAZINE FOR YOUNG MEN IN AGRICULTURE

VOLUME 12 NUMBER 3

In This Issue

FEATURES

16 Behind FFA Week Scenes

HAVE YOU EVER WONDERED ABOUT THE FFA WEEK POSTERS, SEALS, WINDOW STICKERS, AND OTHER MATERIALS? IN A SECOND FLOOR ARTIST'S STUDIO IN BALTIMORE RECENTLY, WE WATCHED AND LISTENED AS FFA PUBLIC RELATIONS DIRECTOR, JOHN FARRAR, WENT OVER LAST-MINUTE DETAILS WITH ARTIST MELVIN STANGE ON FFA WEEK ART.

24 Success At Seventeen

WE FIRST HEARD OF PAUL MILLER IN THE SUMMER OF 1962. HE WAS 16 THEN AND HAD JUST RECEIVED A HARTFORD, CONNECTICUT, TV STATION'S "DAIRYMAN OF THE YEAR" AWARD. NEWS OF HIS ACHIEVEMENTS AND STRUGGLE TO REBUILD A RUN-DOWN FARM NEVER STOPPED COMING INTO OUR OFFICE.

28 Path to National President

THE STORY OF NELS ACKERSON IS THE STORY OF AN INDIANA FARM YOUTH WHOSE DETERMINATION TOOK HIM FROM A GREEN HAND WITH A SINGLE STEER TO NATIONAL PRESIDENT OF 395,748 FUTURE FARMERS. "ALTHOUGH THE BACKGROUNDS OF ALL FUTURE FARMERS ARE DIFFERENT, THEIR OPPORTUNITIES IN THE FFA ARE NOT TOO DIFFERENT FROM MINE," HE TOLD US RECENTLY.

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Our Cover

National FFA Week comes this year—February 15-22—and in all 50 states observances are planned.

So it was recently in Minnesota as Governor Karl Rolvaag signed an official statewide proclamation in his office.

Duane Leach, former national vice president, and Roger Hardy, state president, joined in the activities.

PHOTO BY JBR PHOTOGRAPHY

THE NATIONAL FUTURE FARMER is mailed every two months on the following dates:

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July 20.....AUGUST-SEPTEMBER Issue
September 20.....OCTOBER-NOVEMBER Issue
November 20.....DECEMBER-JANUARY Issue

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FOR TALL THINKERS

Thinking "tall"—which means stretching your thinking above the kind you do when you just want to get by—brings you several rewards. Tall thinking spurs you on to do a bigger job. And when the job is done, you have the reward of satisfaction within yourself for having done it.

At Purina, we'd like to reward your tall thinking in another way. We've started a whole new program of Youth Awards for both boys and girls. They're the two handsome trophies pictured above—modeled after the famous Danforth Youth Statues at Gray Summit, Mo., and Washington, D. C.

If you're a tall thinker—and if you'd like to win one of these Ralston Purina Youth Awards, ask your Purina Dealer or Purina Salesman for details. Or, write us at . . .

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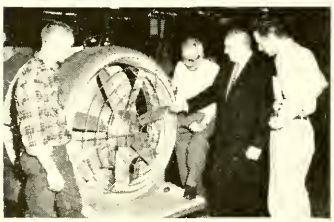

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Your Editors Say . . .

"AGRICULTURE Is More Than Farming"—the title of a recent publication—is a thought that merits your careful consideration as you prepare for your career in agriculture. Today the field of agriculture embraces a much broader area than it once did. It includes those who supply and service farmers, and those who handle and process farm produce, as well as those still on the farm.

More jobs exist today in agriculture off the farm than on the farm. There are about 6 million workers who supply and service farmers and about 10 million workers who handle and process farm produce on its way to the consumer. This compares with the 7 million farmers and farm workers who are actually engaged in production agriculture.

For young men who cannot stay on the farm, these off-farm agricultural occupations offer many opportunities to cash in on their farm background. The practical experience gained from living and working on a farm, combined with a knowledge of rural life, gives you a built-in advantage for gainful employment in the broad field of agriculture. It becomes more important when we realize that since the number of farmers is decreasing, there will be fewer people with a farm background in the years ahead.

A farm background alone, however, will not guarantee success. To use it to the best advantage and fully develop your abilities, you must make use of the educational opportunities available for you. This may be in college or post-high school vocational training, or on-the-job training in a career of your choice.

New legislation, passed in the last session of Congress, is intended to broaden your opportunities for vocational training. The additional funds provide for vocational training in agriculture and do not limit this training to only those who remain in production farming. The bill is known as H.R. 4955 and authorizes 60 million dollars in 1964 to 225 million dollars in 1967, which will be available if Congress approves the appropriation. Just what this will mean for you in terms of additional training must yet be determined, but you can look for a broader vocational program.

But if you want to stay in farming, you still have the opportunity to do so. The major job opportunities here include farm operators, farm managers, and full-time hired farm labor. It is estimated there are at least 60,000 desirable openings a year in these three categories. To be successful in any of these, you will need a sound education in agriculture to begin with, and a continuing education to keep abreast of rapidly changing farm technology.

Wilson Carnes,

Editor

Is your farm machinery putting you in the red?

You're running an active business. You've made a sizable investment in farm equipment. And anything that **delays** your operating schedule . . . anything that **damages** – or **destroys** – your machinery . . . can put a real **dent** in your profits. Even make your farm business a **losing** proposition.

Breakdowns, for instance. They can mean **downtime** for both machinery and hands – and that can **cut into your yield**. But why do they happen?

That's a question for your Texaco Farm Service Distributor. Give him a call. He'll help you find the answer.

Your Texaco Farm Service Distributor has at his fingertips the latest information for maintaining, servicing, and lubricating farm machinery. And he can recommend the most efficient – and economical – lubrication schedule. What's more, he's got the products – high-quality Texaco products. He will provide you with the right grease, oil, and fuel for every piece of equipment on your farm – and, if you need help, show you how to use them.

> Products like Marfak, the superior lubricant that stays on the job. Havoline, Texaco's famous motor oil that can keep your engines from wasting money in fuel, wear, repairs. Texaco Multigear Lubricant EP. Regal Oils for hydraulics. Ursa Oils for diesels. And other Texaco oils and lubricants for successful farm operation.

See or call your Texaco Farm Service Distributor first chance you get. He'll be glad to help you solve many of the problems that can plague you in the field – and he can help keep your farm machinery from putting you in the red.

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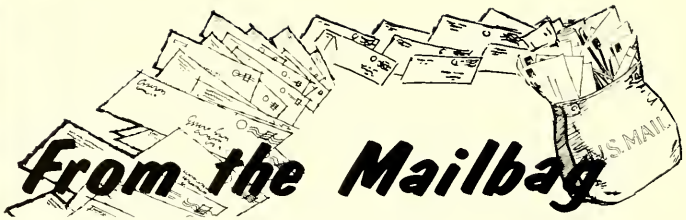
PSMA
$184.95
McCulloch's new
250 offers features and performance usually found only in more expensive saws. Push button primer for fast starting and McCulloch's power-boost carburetor for top performance. Extra cylinder port for increased power, reboreable cylinder with cast-iron liner. Flush-cut handle with plastic grip, fingertip controls, compact design, mean easy handling in any position. Comes complete with McCulloch's super tough Super-Mac Chain on full 17" guide bar to give the 250 top cutting efficency. See the new model 250 at your McCulloch dealer now.
PRICE SHOWN IS MFR'S. SUGGESTED LIST. SPECIFICATIONS AND PRICE SUBJECT TO CHANGE WITHOUT NOTICE.



Hackett, Arkansas

As I sit here at the typewriter thinking about what would interest all Future Farmers, I think back to our Creed. "I believe in the future of farming." This first line expresses the feeling that I have. As I look at the growing population figures, I wonder how we are going to feed all these people. Today there is a surplus. Will this be true in the year 2000? I doubt it.

The Government is trying to put controls on many things. Farmers don't want this. There is also a great industrial boom. Each time a new machine is built, there must be trained operators to run it. This is where many Future Farmers will be years from now. All those who don't farm will be dependent on those who do.

All the food city people eat must be produced on a farm. This is the reason I believe there is a future in farming.

Clymer Law, Jr.

Thanks, Clymer, for your interesting letter. You are so right—there is a future in farming. The future is open to all who work to achieve it.—Ed.

Springfield, Minnesota

I enjoyed reading the report on the National FFA Convention. I attended the Convention for the first time this year, and the articles on it brought back some of the highlights to me. I wish more Future Farmers had the opportunity to attend the National Convention. It is an experience that won't be forgotten.

I look forward to reading each issue of *The National FUTURE FARMER*. I have gained much knowledge in farming that I would not have had the opportunity to learn in this area. You have an interesting and informative Magazine.

Harold Larson

Stillwater, Oklahoma

I enjoy reading nearly every section of your Magazine. I certainly appreciate the opportunity to receive so many interesting and useful items from your "Free for You" department.

I am proud to have Jon Ford, the Southern Region Star Farmer, as a friend and fellow student at Oklahoma State University.

I would like to encourage an article entitled "The Future of Farming in the Southwest."

Melvin Deering

Lahaina, Hawaii

I belong to the Lahainaluna FFA Chapter in Hawaii. The chapter has about 50 members, and we have plenty to do here. I am a boarding student at Lahainaluna and work on the chapter farm. It consists of poultry, dairy, swine, orchard, a garden, and a shop where the boys are assigned certain jobs.

I worked in the dairy last year, but now I'm an assistant foreman. We have about 17 cows in production, averaging 50 gallons a day. I'm interested in dairying and the management of beef cattle.

Glenn Feiteira

Odenville, Alabama

I have something on my mind that is important. We as Future Farmers face a grave challenge which no other people in the entire world face. It is a challenge which only the Future Farmers of America can meet.

I am speaking of the coming gigantic population explosion. I believe that for every 40 people living today, there will be 70 in 1970. What are we going to do is the big question.

The answer is simply that the number of farmers must increase with the population. The amount of food these farmers produce must double also. As I see it, the only hope lies in the FFA. We must have more young people like me who are interested in the future of farming. I am in my third year as a member of the FFA, and I would not trade those years for anything.

Truman Sanders

Decatur, Tennessee

I just received my copy of *The National FUTURE FARMER* and found it to be most interesting. I especially enjoyed the coverage of the National FFA Convention and the new Star Farmer of America.

Being president of the Meigs County Chapter, I think that I express the feelings of the entire chapter when I say that your Magazine is the best. The only complaint is that it isn't a monthly magazine. Each boy in the chapter is willing to pay more to receive it once each month.

Keep up the good work, and if you do decide to make it a monthly magazine, we want you to know that we're behind you all the way.

Tommy Skelton

H. D. Lee Company, Inc., Kansas City 41, Mo.

Lee's Master Tailor goes out on a limbo

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Our Master Tailor has too much sense to try this himself. But he bends over backwards to make sure you can. Proof? His perfectly tailored Leesures. They are lean and hip-hugging, so you can really swing in them comfortably. This is the great look young America is walking in today. Leesures available in twills, polished cottons and textured weaves. In classic and continental styling. Lee's swinging colors: Sand Beige, Bone "White", Sea Foam, Loden and Black. Price? Lee bends over backwards there, too. From $4.95 to $7.95.

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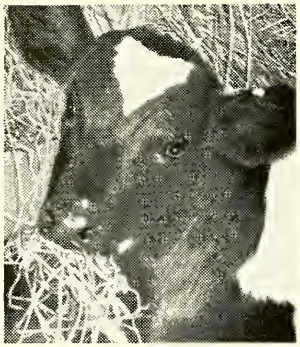

HAY IN THE RUMEN

...is money in the bank!

The greater the rumen capacity the higher the milk checks–and Albers Calf Manna doubles a calf's rumen size in 56 days! This is one reason why so many prosperous dairymen depend on the Carnation-Albers Herd Replacement Program.

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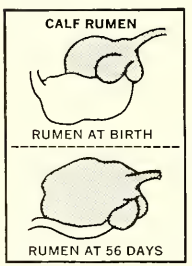
Calf Manna gets rumen development off to the fastest possible start–calves are completely weaned in less than a month. It's the only pelleted supplement formulated for first-day feeding.

The cost of building a top-potential milker is surprisingly low, too. You use less than 25 pounds of Suckle milk replacer and never more than 1 pound of Calf Manna a day. See your dealer–soon.



DOUBLE RUMEN SIZE IN 56 DAYS WITH...

Calf Manna

Suckle

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Please send me "Carnation-Albers Herd Replacement Program" – your 36-page rumen research bulletin.

Name _____

Address _____

My feed dealer is: _____

Looking Ahead

FROM FEATHERS TO COW FEED

Chicken feathers may become a valuable ingredient in cattle feed. A hydrolytic process developed at North Carolina State University makes protein in common feathers digestible to ruminants. In 112 days of trials, the feather meal proved comparable with soybean oil meal as a protein supplement for cattle. The meal is not satisfactory for swine and poultry, however, since nonruminants need amino acids that are absent in feathers.

NEW HARVESTERS ON THE HORIZON

An experimental machine to harvest tobacco and another to harvest blueberries have been unveiled by the USDA. The self-propelled blueberry machine uses 160 vertical wooden fingers to pull ripe berries into a box. The tobacco harvester cuts trimmed plants off at ground level, feeds pierced plants into a threader where they are strung on wooden sticks, then conveys them onto a wagon. Results: blueberry harvesting costs may be cut from 8 cents to .5 cent per pound. One man should be able to harvest three acres of tobacco in 10 hours.

GET READY FOR CENSUS

Farmers will need good farm records in 1964 to complete their part of the upcoming census of agriculture. The regular farm census, last taken in 1959, will consist of a form mailed in October which includes questions dealing with crops and livestock produced and sold, and use of farm land. A census taker will then visit each farmer about a month later. This new plan differs from 1959 in that the farmer fills in his own information.

NEW USE FOR CORN COBS

Corn cob dust from a Mount Pulaski, Illinois, feed mill is being sold at the rate of $40,000 a month for women's face powder! Mill workers were found to have excellent complexions after working around the peach-colored dust, so Earl Wright, a salesman, developed the idea. He buys the dust for $60 a ton, then packs it in plastic compacts under the name "Galaxy Micron." He says its value comes from absorbing skin moisture five times faster than talc.

NIGHT LIGHTING AIDS CATTLE

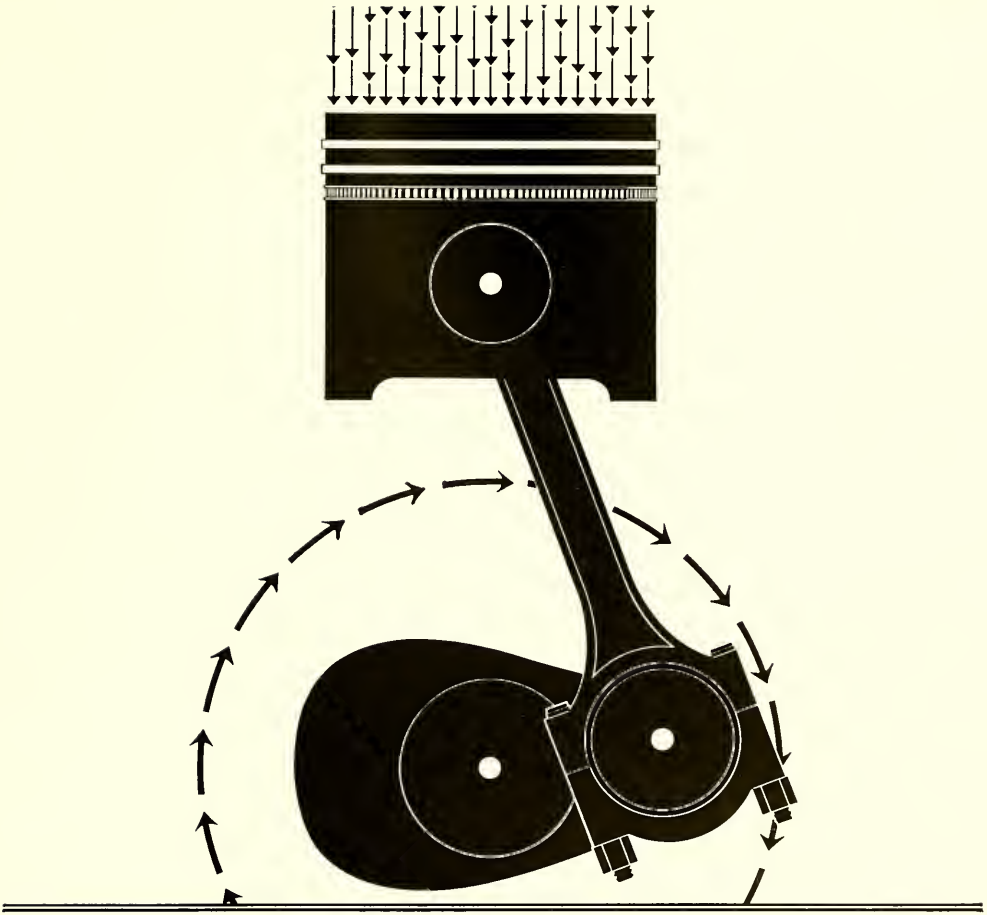
Feeder cattle in feedlots illuminated after dark with incandescent lights outgained similar cattle in unlighted areas, say Kansas State researchers. Using a trial study of 225 days, cattle in the lighted feedlot gained 1/10 of a pound a day more than their relatives in the dark. In addition, the lights quieted the cattle at night and during storms, making them easier to work with.

RADIO-EQUIPPED 'COONS

Several raccoons will be roaming the South Dakota countryside this year—transmitting radio waves wherever they go! The wildlife department at South Dakota State University is attaching small radio transmitters to the back of raccoons, then releasing the animals to the woods. The radios will tell researchers where the animals are so that travel habits can be studied and eating habits recorded.

BOLL WEEVIL CONTROL?

A new natural substance has been extracted from male boll weevils that may someday lure lady boll weevils to their doom. Entomologists at the USDA working with Mississippi scientists enclosed male weevils in plastic cages, drew the air into a column of activated charcoal, then removed the charcoal after 11 weeks. The charcoal was soaked in chloroform and evaporated. The residue obtained was a natural attractant for female boll weevils. It may someday lure them to traps.



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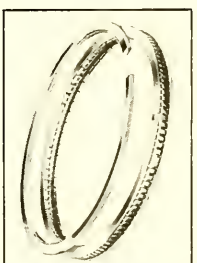
Worn rings cost you power, operating hours, oil. Not very profitable. Re-ring with dependable rings that help prevent power loss and money loss... Perfect Circles. ■ PC makes piston rings for all types of engines – rings that help restore original engine efficiency, cut operating costs, promote free oil flow to eliminate clogging. Most farm equipment manufacturers are among the manufacturers who specify Perfect Circle as original equipment and/or replacement rings for 127 brands of vehicles and engines. ■ For full-power, full-profit tractor and truck operation, do as most farmers do—install replacement rings made by Perfect Circle when you overhaul your engines.



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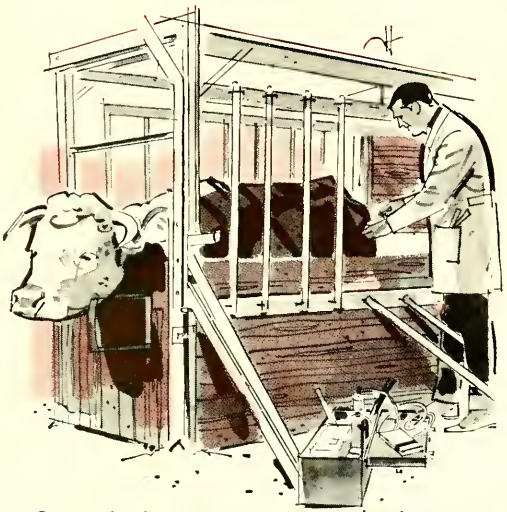
FOR THE SAME REASON YOU VACCINATE CATTLE



Successful farmers look upon vaccination as a sound investment in the protection of valuable herds.

They look at farm equipment lubrication in the same light. Because it is no place to cut quality corners, many use Kendall Lubricants. All are refined from the choicest 100% Pennsylvania Crude Oil. All pay off through the Economy of Kendall Quality. Less wear. Less need of repair. Important savings every month of the year.

USE KENDALL FARM LUBRICANTS

KENDALL MOTOR OILS

KENDALL REFINING COMPANY • BRADFORD, PENNA.

Lubrication Specialists Since 1881

THESE new books are reviewed as a reader service. If your local bookstore doesn't have them, write directly to the publisher and mention *The NATIONAL FUTURE FARMER.*

Exploring Your Future in Agriculture (American Liberty Press, 746 W. Winnebago Street, Milwaukee 5, Wisconsin, $4.00)—Here are listed 75 most important agricultural occupations, complete with duties of the job, requirements for entering, and the promotional outlook you can expect. A "Personal Profile" form included with the book lets you rate your own characteristics to help you pick an occupational area. Learn about jobs from artificial breeding technician to farm communications to soil scientist.

What to Do When . . . (Interstate Printers and Publishers, Inc., 19-27 N. Jackson St., Danville, Illinois, $.50)—In 77 illustrated pages, high school teachers, Rowena Lutz and Mable Allen, give tips on etiquette for teenagers. Here are the solutions to social problems from what to do on a date to how to be a good host at parties. It has been written to be your guide in creating a good impression.

Milking Machines and Mastitis (Democrat Printing Company, Madison, Wisconsin, $3.00)—Author Daniel Noorlander has worked in dairying for over 20 years. His 280-page book contains the latest in research on the causes and control of mastitis and related milking problems. Chapters on the milking machine, cleaners and sanitizers, and testing and treating of mastitis make this book a valuable addition.

Wood Finishing Tips (McCloskey Varnish Co., 7600 State Road, Philadelphia 36, Pennsylvania, $.25)—This colorful guide to better natural wood finishing offers tips on working with old and new woods of all kinds. In its 32 pages you'll find hints on how to bleach wood, remove old finishes and waxes, and how to antique furniture.

CARTOON CONTEST WINNERS

Here are the winners of the Cartoon Caption Contest, which appeared in the December-January issue. The response was excellent, finishing with a grand total of 1,395 entries. In some cases, more than one reader sent in the same caption, so the judges picked the ones with the earliest postmark.

FIRST PRIZE, $15
"Shift man."
Larry Richardson, Kettle Falls, Washington

SECOND PRIZE, $10
"A professional estimate of your talent."
Mike Yocom, Fort Sumner, New Mexico

THIRD PRIZE, $5
"Gives you a new perspective."
Howard Reimer, Hesston, Kansas

HONORABLE MENTION
"Just two short blocks from the Union Station."
Arnold Folkersma, Rudyard, Michigan

"I'm mighty pleased with the traction of my field."
Ken Compton, Reddick, Florida

"Both require fencing."
John Kestel, Frankfort, Illinois

"Traps to catch the money-makers."
B. Lehnert, Mecosta, Michigan

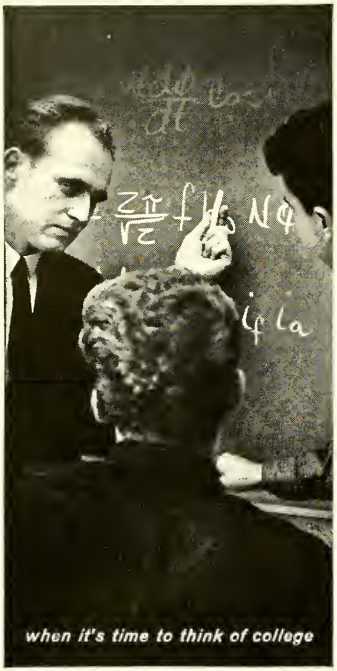
"Make friends with one."
Teddy Hopkins, Clinton, Kentucky

These big bruisers can put a tractor out of business

That's why you need the bruise-resistance of BFG nylon tires

And they cost less than most tires made without nylon. Gather up all the tire-killers your tractor tires are exposed to in a day's work, and the collection probably would look something like what's shown above. That's why you need the nylon cord protection of B.F.Goodrich Power-Grip rear tractor tires. Pound for pound, nylon is stronger than steel . . . eliminates the dangers of bruises, breaks. Nylon is immune to damage from moisture in the soil or ballast. Extra seasons of service are built right into the Power-Grip. □ And to make sure they have the gumption to take the daily grind, we build the Power-Grip with cleats 29% wider and 9% higher at the shoulder than any replacement tractor tire we've made before. They take a deep bite into the soil and keep rolling with all the equipment your tractor is built to pull. And more rubber on the ground means you get longer wear. □ Stop in and talk to the man at your BFG Farm Tire Service Center. He has two other new BFG tires you should know about: the new Multi-Ring front tractor tire, and the new Rib Implement tire. He'll be glad to answer any questions you may have on tires for modern farming, and how you can get longer, more efficient service from them. Stop in and see him soon. *The B.F.Goodrich Company, Akron, Ohio 44318.*

B.F.Goodrich
NYLON FARM TIRES



find out about engineering at MSOE

Planning your education correctly now will enhance your career later! That's why you should obtain all the facts about MSOE programs in Electrical and Mechanical Engineering and Technology.

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Tell me about an engineering career through residence study in:

☐ Electrical fields ☐ Mechanical fields

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City, State.....

The Goodwill Tour —1964

AS THE FFA station wagon carries the national FFA officers south from Washington, D. C., on February 2, another official FFA Goodwill Tour will be getting under way.

For a full month, your national officers will be traveling ambassadors of goodwill as they visit companies and individuals in 16 cities and eight states. As has been true since 1947, they will take the story of vocational agriculture and the FFA to the leaders of some of America's most important industries and organizations.

This year the theme of the tour is "Agriculture is more than farming," and some emphasis will be placed on the related off-farm agricultural occupations. Armed with a newly released movie telling the story of modern agriculture, the national FFA officers will hold five open meetings in major cities from New York to Chicago. It will be at these gatherings that interested persons and organizations will have a chance to meet the national officers and learn of their personal farming programs and of the work and scope of the FFA.

The tour, scheduled to end on March 4, will give the six new national officers their first opportunity to work together as a team. They will visit farm machinery production plants, have dinner with industrial leaders, visit farm clubs and cooperatives, and appear on TV. When they return to their homes following the tour, they will have visited scores of FFA Foundation donors and brought the FFA story to hundreds more.

Condensed in part below is their month-long schedule of events. You may have an opportunity to join them at one of the five open meetings.

RICHMOND, VIRGINIA—(February 2 through 4)

PHILADELPHIA, PENNSYLVANIA —(February 5 through 6) **Open Meeting:** Thursday

NEW YORK CITY — (February 7 through 11) **Open Meeting:** Tuesday

PITTSBURGH, PENNSYLVANIA — (February 12 through 13)

AKRON, OHIO—(February 14 through 17)

COLDWATER, OHIO—(February 18) **Open Meeting**

CLEVELAND, OHIO—(February 19) **Open Meeting**

DETROIT, MICHIGAN — (February 20 through 23)

MILWAUKEE, WISCONSIN—(February 24)

RACINE, WISCONSIN — (February 25)

CHICAGO, ILLINOIS—(February 26 through March 2) **Open Meeting:** Thursday

MOLINE, ILLINOIS—(March 3)

QUINCY, ILLINOIS—(March 4)

In addition to the above cities, trips to Peoria and Bloomington, Illinois, and Dayton, Ohio, have been planned by several of the national officers. Again this year, the official FFA Goodwill Tour promises to be a highlight of the year for the FFA and its student leaders.

New NVATA Officers

A NEW slate of officers took their posts recently at the annual convention of the National Vocational Agricultural Teachers' Association in Atlantic City, New Jersey. The professional organization has as its members FFA advisors from 49 of the 50 states.

Walter Bomeli, Bangor, Michigan, took charge as president of NVATA, while Winfield Weaver of Delphi, Indiana, took over Bomeli's unexpired term as vice president of Region IV. Other vice presidents of NVATA are Sam Stenzel of Russell, Kansas, Region II; Harold Crawford, Sac City, Iowa, Region III; and Elvin Walker of Norman Park, Georgia, Region V. Advisors James Durkee, Douglas, Wyoming, Region I and James Givens, Winchester, Virginia, Region VI, remain in office as vice presidents of their respective regions.

Completing the new NVATA slate of officers for 1964 were Robert Howey, treasurer from Sycamore, Illinois, and James Wall, executive secretary from Lincoln, Nebraska. All officers have had long affiliations with vo-ag and the FFA.

Good conservationists must also be good fence builders

Is professional soil conservation work in your future? If it is, your many talents must include good fence building. Contour fences! Land use boundary fences! Property line fences! Even temporary fences for rotational grazing! All these are tools of a good conservationist's trade. And when they are properly located and well built, they bring important economies to the modern farming enterprise.

GOOD CONSERVATION also points the way to a permanent and profitable system of farming. This calls for good fences—built with Red Brand® Fence and Red Top® Steel Posts. The reason: Only Red Brand is Galvannealed® to fight off rust, so it costs less in the long run. And Red Top Posts now have reflective tops with a smart modern look. Yes, good Red Brand fences fit the tool kit of every good conservationist.

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Red Brand Woven Wire ☐ Red Brand Barbed Wire ☐ Red Top® Steel Posts ☐ Keystone Feedlot Fence
☐ Keyline® Netting ☐ Keystone Horse Fence ☐ Baler Wire ☐ Nails ☐ Gates ☐ Non-Climbable Fence

Artist Mel Stange goes over the final plans for FFA poster with John Farrar.

Behind FFA Week Scenes

As John talks, Mel sketches ideas to develop the illustrations for FFA Week.

AGRICULTURE — Dynamic . . . Challenging!" FFA Week's theme for 1964 will be spread in brightly illustrated form before thousands of onlookers this year, as it has for many years. February 15 through 22 will be a week when Future Farmers promote the FFA from specially planned banquets to roadside billboards.

What is the story behind the four-color billboards, the now-famous FFA Week poster, and the array of colorful materials that helps proclaim FFA Week each year? It is a story of careful planning, a talented artist, and the combining of many ideas.

A visit with friendly Melvin Stange at his studio in Baltimore, Maryland, gives evidence of some of the work the artist is involved with during the months before FFA Week. Stange Studios has been the birthplace of FFA Week art for 15 years, since the time when the event was held only one day during the National FFA Convention. His personally prepared posters, bill-

Take a tip from top raisers... **FEED THE**

Holstein breeder N. Newcomb, Cods Point Farm, Trappe, Md.

"Our calves and heifers both benefit from the Milk-Bank Boost. Kaff-A Milk Replacer gives us healthier, heavier calves, cuts scouring. Kaff-A Booster Pellets help heifers grow faster, breed sooner."

Manford Stewart, Frankfort, Ind., leading Hampshire breeder

"We produced 4,000 certified pigs last year, and Kraylets is a key part of all our feeding programs. The Milk-Bank Booster gives us bigger, healthier litters, better feed efficiency, less backfat. Keeps sows in good condition."

Henry Kruger, owner of Kruger's Poultry Farm, Dinuba, Calif.

"During a recent cold snap, some of my neighbors had 50% drops in production. My flock held its 76% average, thanks to the Milk-Bank Boost of Pex Pellets. I get 80% large eggs and less culls, using Pex the year around."

In final printed form, a complete illustrated listing of FFA Week supplies is available to all FFA advisors. Materials are put on sale by FFA Supply Service.

boards, and seals have passed through the hands of thousands of Future Farmers. A commercial artist by trade, Mel Stange is the skilled hand behind much of the FFA's art work, including awards booklets and the art for the Supply Service catalog.

The theme for FFA Week is made final each year during the January Board meetings. Mel's work begins around the middle of October when FFA public relations director, John Farrar, brings a group of ideas and rough sketches from the National Office in Washington, D. C. With the sketches and some copy written by John, the two discuss ways the theme can be illustrated. In the elevated cubicle overlooking West 25th Street, Mel sketches while John talks.

The official FFA poster is the first to be sketched, for its design will be carried through the remainder of the FFA Week materials. Before John returns from this first trip in October, the ideas have been set into graphic form, and Mel has the information to proceed on the layouts of the other materials. Next, rough sketches of the FFA Week seal, place mat, window sticker, and tent card come off Mel's drawing board.

Over the next five weeks, John makes an average of four trips to Mel Stange's studio to check on progress, advise and recommend modifications, and give final approval to the art work. Careful consideration must be given to final color combinations, particularly on the poster. When Mel's work is completed around December 1, a printer who has submitted an acceptable bid begins production. First off the presses are 12,000 copies of the illustrated "FFA Week Supplies" catalog that will bring the annual result of Mel's work to FFA advisors across the country.

Mel Stange's creative work is finished for the 1964 FFA Week now. The FFA work has been sandwiched between other jobs, but Mel estimates he spent the equivalent of three full weeks working on art for FFA Week. From Mel's drawing board came the design for 2,200 billboards, 40,000 tent cards, 175,000 place mats, 40,000 window stickers, 600,000 seals, and more than 12,000 posters to help tell the FFA's story this February.

MILK-BANK BOOST

Milk by-product feed boosters by KRAFT

F. Miller, Mgr., Santa Rosa Stables, Texas, Waggoner Quarter Horse breeders

"Pace Pellets give our colts what they need—a fast, healthy start. The Milk-Bank Boost of Pace is part of our program for mares, studs and show horses, and we think it has a lot to do with keeping them in top condition."

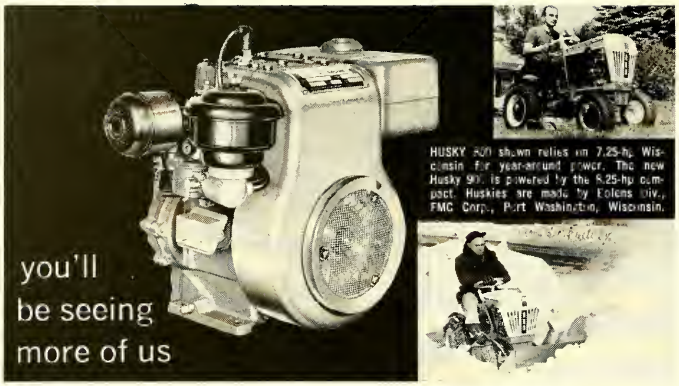
Minnesota Dairyman Archie Zarling raises own Holstein herd replacements

"Kaff-A Milk Replacer gives me big, thrifty, healthy calves. And the Milk-Bank Boost of Kaff-A Booster Pellets produces heifers that can be bred at 12 to 13 months. It keeps my cows' milk production high."

W.W. Callan, owner of Callan Ranch, Waco, Tex., Santa Gertrudis breeder

"We give our showcase herd the Milk-Bank Booster, Kaff-A Booster Pellets. It brings out the best qualities of our stock, helps them gain faster, stay in top health and condition, and gives them extra bloom and gloss."

KRAFT FOODS AGRICULTURAL DIVISION, 500 Peshtigo Court, Chicago 90, Ill.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HUSKY 820 shown relies on 7.25-hp Wisconsin for year-around power. The new Husky 90 is powered by the 8.25-hp compact. Huskies are made by Eclipse Div., FMC Corp., Port Washington, Wisconsin.

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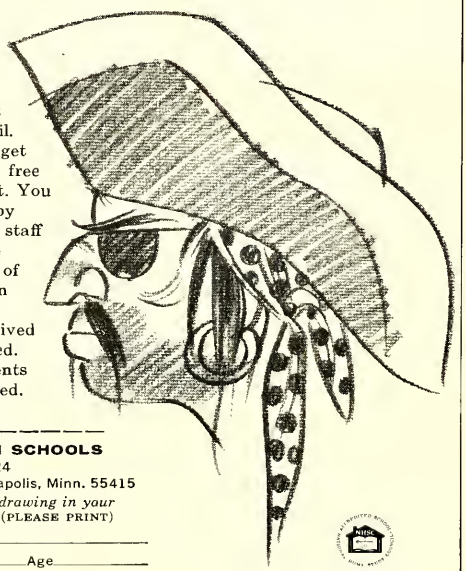
Draw the Pirate

Contest Prize: $595.00 Scholarship in Commercial Art



Draw the Pirate's head any size other than this (bigger or smaller but not like a tracing). Use pencil. As winner of contest you get a complete art course — free training in commercial art. You are taught, individually, by professional artists on the staff of America's largest home study art school. Purpose of contest: to uncover hidden talent. Entries for April 1964 contest must be received by April 30. None returned. Amateurs only. Our students not eligible. Winner notified. Mail your drawing today.

ART INSTRUCTION SCHOOLS
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Please enter my attached drawing in your draw-a-head contest. (PLEASE PRINT)

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39—Practical Farmstead Planning — Two valuable sections every farmer should have access to—farmstead planning and farm facts. Planning section tells how to lay out and plan your farm with detailed illustrations. Facts section lists hundreds of items such as weights, capacities of buildings, and livestock feed requirements. (Republic Steel)

40—Corn, America's Greatest Crop—The story of the history and culture of corn in 14 colorful pages. Here are told how corn breeding is done, what hybrids are, and how corn is grown for seed. A section on the future of corn tells you what to expect in years ahead. (DeKalb Agricultural Association)

36 37 38 39 40

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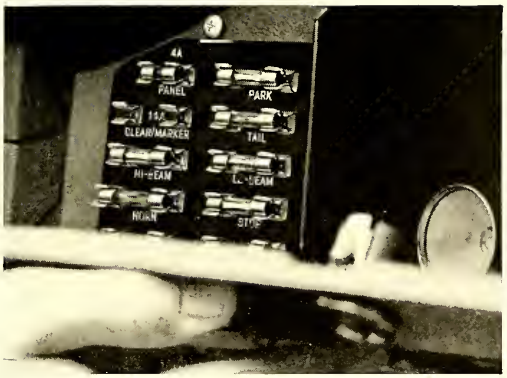
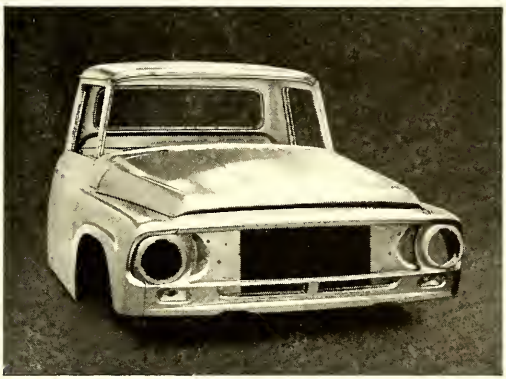
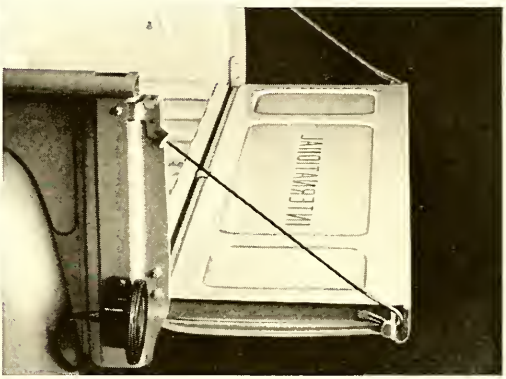


Why doesn't everyone put the fuse panel where you can find it? (We put it in the glove compartment. And we label each fuse.)

It's safer inside because the gas tank's outside. (We put it under the pickup body.)



Zinc—and plenty of it—gives our bodies longer life. (We use it anywhere there's even a chance of corrosion.)



We build them 3 inches longer at the tailgate to save you a ½ mile of lifting a year. (And the steel floor can't warp, rot or splinter.)

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The International approach to the building of trucks is kind of unusual.

We don't always have something new to advertise at new model time.

Our truck styling doesn't automatically change from year to year.

All we're interested in is building the right truck for the job. Every job.

That's why we offer more different sizes and kinds of models. Equip them with stronger parts and components. Design them more thoughtfully. And outfit them more completely.

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Please send me bulletin on Lincoln 180-amp AC welder. I understand there is no obligation.

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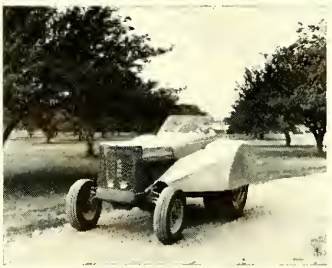
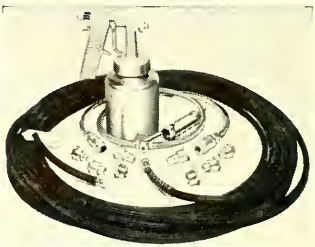


G. New "4000" tractor for orchards is fully shielded. Features rear platform, 34 or 39 horsepower, gas or diesel. (Ford Motor Co.)

H. More traction with four-wheel drive, 100 plus horsepower "1900" tractor. Adjustable power steering, Hydra-Power drive. (Oliver)

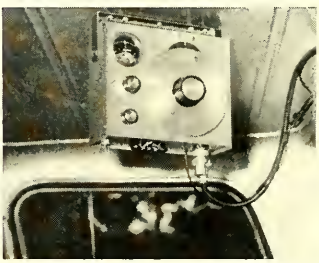
something new

I. Ice Cycle "130" cruises at 15 mph, is powerful enough to go through five inches of snow. Pulls three persons, has 3 horsepower gasoline engine. (Fox Manufacturing)

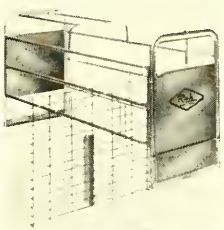


J. Portable paint sprayer operates from tractor by removing two spark plugs. High pressure for all painting. Complete with 50 feet of hose, nozzles. (Meiser & Co.)

K. Antibiotic udder sponge contains Neomycin to fight mastitis. Can be used from cow to cow, over and over again. Inexpensive. (Kleen Test Prod.)



L. Electronic scales system converts trucks, wagons into accurate scales. Load cells are mounted between bed and chassis, then wired to indicator in truck cab. (Radson)



M. Farrowing crate handles sows up to 700 pounds, yet can be folded and stored after using. (Rink Enterprises)

Free detailed information is available on the above products. Send coupon to National Future Farmer, Alexandria, Virginia 22306.

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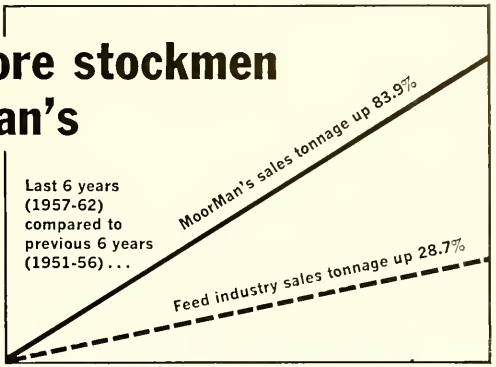
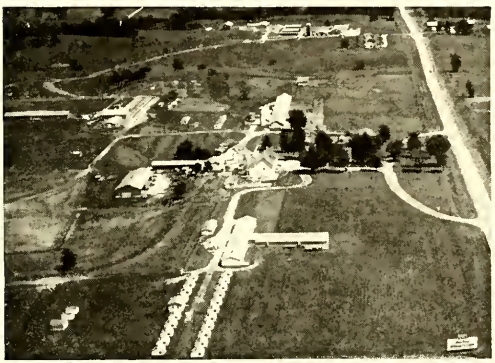
Here's why more and more stockmen are switching to MoorMan's

Feeding MoorMan's with grain and roughage makes sense to an increasing number of stockmen. And growth in *numbers of livestock* fed MoorMan's is even greater than this tonnage chart indicates—because each ton of MoorMan's concentrated concentrates balances and fortifies more farm-grown feeds than most ordinary feeds or supplements.


Last 6 years (1957-62) compared to previous 6 years (1951-56)...
MoorMan's sales tonnage up 83.9%
Feed industry sales tonnage up 28.7%



MoorMan Products are research-proven three ways by more than 75 skilled research workers: Through development and quality control; in exhaustive tests on this or one of our other two Research Farms, totalling 1,280 acres; and in Field Research on hundreds of working farms and ranches in various parts of the nation.

This is the "store" from which stockmen select MoorMan products to fill their feeding needs. More than 2,000 local MoorMan Men take it direct to farms and ranches—along with helpful information from our Research and Service Departments based on MoorMan's 78 years of experience and know-how.

Typical of MoorMan leadership was first-in-the-industry development 11 years ago of protein-mineral-vitamin blocks for self-feeding to cattle on grass or roughage. Gigantic presses like this turn out 10 *different* Mintrate* Blocks to fit varying pasture or roughage conditions. More than 18,000,000 Mintrate Blocks fed successfully.

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The most important reason for the growing switch to MoorMan's is the results users get—in good feeding results and low total feed cost to produce meat, milk and eggs.

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Low *total* feed cost is enjoyed by MoorMan users because Mintrates are *concentrated* concentrates of essential nutrients built to work *with* grain and roughage, not replace them.

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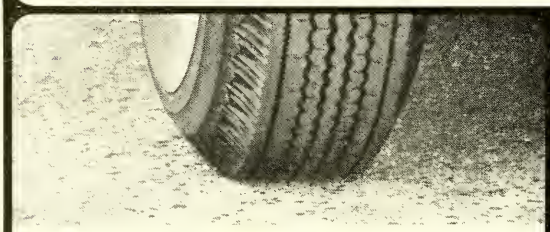
3-T SURE-GRIP... America's great low-price tractor tire! Outperforms every other in its class.

Here's the extra bite, the extra traction that 45° ruler-straight lugs can deliver. Plus a 3-T cord body, tempered like steel for triple toughness. Perfect replacement tire, at a really low price!



Great low-cost auto tire—TUFSYN, too!

The All-Weather 42 auto tire gives you the mileage only Tufsyn rubber can deliver . . . the body strength only possible with 3-T Nylon. Special low prices now.

Now starting at less than $15!

The Only Low-Cost Truck Tire With TUFSYN!

Perfect for farm and ranch trucks. With mileage-stretching Tufsyn . . . and triple-tough 3-T Nylon body. No better value at season's special low price. Ask for Hi-Miler R-C truck tires by Goodyear.

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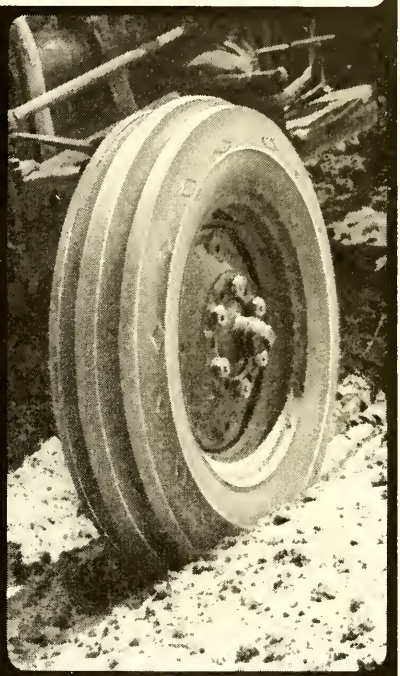


No other tractor tire like it! **SUPER-TORQUE** outpulls all others in the field, outwears all others on the road.

Exclusive "Angle-Braced" lugs—wider, longer, deeper—shaped like corrugated steel—get more pulling power into every turn of the wheel. Cover more ground in less time. Save you as much as 28% on tire operating costs. They're made with Tufsyn rubber for longer, stronger wear.

New TRIPLE-RIB Front Tire

Famous 3-Rib design is now improved by important new features. NEW rim shield protects tire bead and rim flange from stabbing, cutting objects. NEW extra wide outside ribs give even greater load distribution, higher flotation and proper soil penetration. Built from tough 3-T Nylon for long hard wear, new Triple-Rib is the best economy-priced tire money can buy.

Strawberry Plant Special! Visit your Goodyear Dealer or Goodyear Service Store displaying this Spring Trade-In advertisement and pick up the special coupon entitling you to special discount prices for top-quality, USDA-inspected strawberry plants! Enjoy the pleasure of rich, ripe strawberries from your own garden—and save money too! Your choice of June-bearing or ever-bearing varieties from famous nurseries! But hurry! Offer good only until May 10, 1964! Hurry on in!

GOODYEAR

Super-Torque, Sure-Grip, Tufsyn, All-Weather, Hi-Miler—T.M.'s The Goodyear Tire & Rubber Company, Akron, Ohio

A Future Farmer's love for dairying, plus his mother's determination to help him build a farm after the untimely death of his father, is the stimulating story behind Paul Miller's . . .

By
Paul Weller

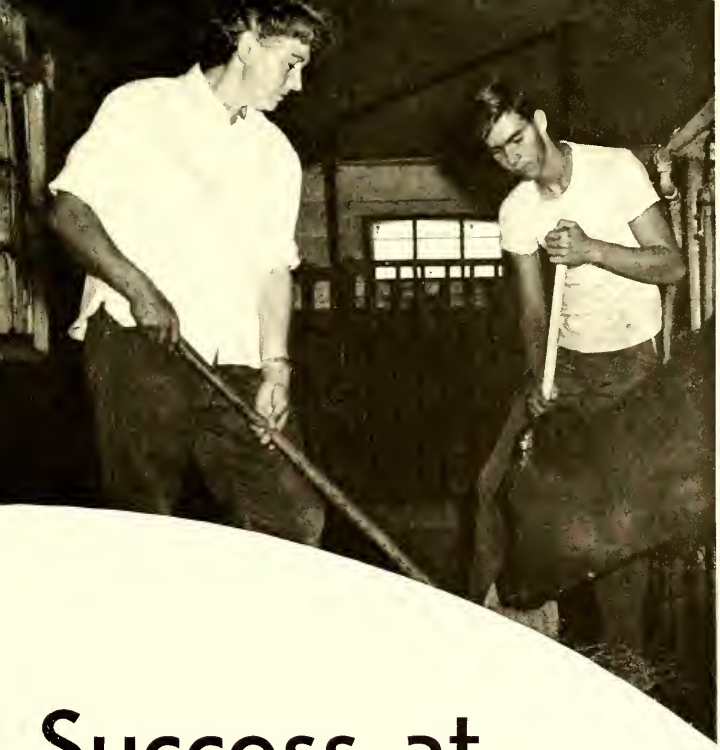
PAUL MILLER'S success with dairying began long before that tragic June day back in 1961, when a tractor accident took the life of his father. It was rooted deep in a small quiet boy who loved the farm and the cows and who always begged his father to let him drive the big tractor. By the time he was eight, he had a registered Guernsey calf, and when he entered vo-ag at Norwich, Connecticut, his herd had grown to three.

The dedicated Future Farmer was the deciding factor behind Mrs. Miller's decision to stay with farming after the untimely death of her husband. The mother and her teen-age son found themselves with a herd of cattle, machinery, and a rocky 60-acre farm with which to make a living. It didn't have enough potential, so with Paul's love for dairying and Mrs. Miller's determination to see him through farming, they set out to find a better one.

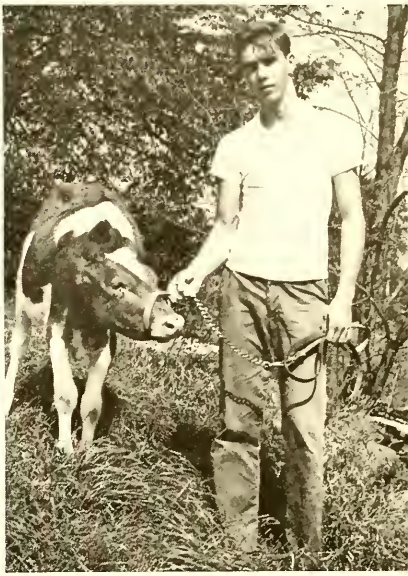
"We sold the farm to a gravel concern and remained on it rent-free," Paul explained. He was a junior in vo-ag then, and after school and in his spare time, he helped look for another farm with a dairy potential. It took six months of looking, but a 70-acre farm near South Woodstock became available complete with cattle, machinery, and an opportunity to rent an additional 60 acres nearby. With the money from their former farm and a loan from the Federal Land Bank, the Millers took their 20 cows and machinery and moved upstate.

It was then that Paul and his mother went into a formal partnership to farm together. They were now on a farm with a dairy barn and 60 head of cattle, counting the ones acquired when they moved. The land was in need of renovation, fences needed to be built and repaired, and there was no place for the heifers and dry cows. The water supply was far from enough to support 60 milk cows, and Paul still had a year of school before graduation.

The summer of 1962 tested the in-



Mrs. Miller, shown helping Paul feed the dairy herd, is an important part of the team. She was born on a farm.



A breed association gave Paul a heifer calf in recognition of his farm work.

Success at Seventeen

Governor Dempsey presents Paul State Star Farmer award for the Northeast.

genuity of both Paul and his mother. A drought plus the lack of a fertility program resulted in a far-below-normal harvest of hay. They needed 5,000 bales to feed their cows over the winter. Mother and son, with help from Advisor John Durst and neighbors, teamed up to get the work done. Paul bought standing hay in the neighborhood, and he and his mother cut and baled it. He called in the Soil Conservation Service to help build a farm pond for more water, and when time permitted, he built electric fences to rotate his pastures.

When Paul had moved upstate, he brought with him lumber milled from trees on the former farm. Using this, he got help to build a pole barn for the heifers that fall. And before summer had come again, he had painted the barn and further improved fences and pastures.

The harsh responsibilities couldn't keep Paul from taking part in outside activities. He was on the New England Championship Cross Country team; he won the FFA's soil and water management award; a Connecticut radio station named him the state's outstanding farm boy; and he won both the Regional FFA Star State Farmer and Regional Dairy Farming awards for 1963. Not long after Governor Dempsey had presented him his awards before the huge crowd at the Eastern States Exposition this fall, he was on his way back to the farm again.

Paul Miller is a success, but his dreams are yet to be fulfilled. There's the 60 acres he rents that he hopes to buy some day. He wants a full herd of registered cows with a production average well above the 9,900 pounds he now gets. And he wants to further his education with Young Farmer classes and courses at Woodstock Academy. No one who meets the mother-son team can help marveling at what they've accomplished in little more than two years. Nor do they underestimate the potential the two have as dairy farmers.

Facts Behind Marketing Orders For Milk!

AT ONE OF Secretary Freeman's "Report and Review" meetings last fall, an outraged farmer loudly voiced his discontent with his local milk marketing order. "You promised us better conditions, but since the order went into effect, we've gotten lower prices for our milk," he said. Others followed suit. The consensus of opinion here seemed to be that many of the dairy farmers didn't understand the facts behind Federal marketing orders.

What are milk marketing orders? Are they bits of legislation imposed on the farmer by the Federal Government? Just how do they operate, and what do they regulate?

Federal milk orders are legal instruments issued by the Secretary of Agriculture on request of organized dairy farmers in a specific market area. They must be voted into effect by the dairy farmers themselves before they are legal. They do not guarantee a given level of prices for milk, but assure the farmer a price for his milk that is justified by local economic conditions. In other words, milk prices are determined by taking the cost of feed in the area, costs of production, and supply-demand conditions, then deciding on a reasonable price to the farmer. Because milk production varies a great deal and prices may suffer, milk orders tend to keep prices at a rather stable level.

Milk orders do not control milk production; they do not guarantee farmers a fixed price level as price supports would; nor do they guarantee the farmer a market for his milk. They merely provide for more orderly marketing of raw milk by pricing it according to its use in the area. One price is decided upon for that portion used as bottled milk (Class I), and a lower price is determined for that used to make manufactured dairy products (Class II).

Class I prices (bottled milk) are established by knowing the production costs of the marketing area, then using a formula pricing plan. The pricing plan may vary, but the final Class I price to the farmer must not be more than the cost of similar milk in another area, plus transportation. If it were lower in other areas, milk companies might bring in milk from those areas and the local dairy farmers would suffer.

Class II milk (dairy product manufacturing) is milk that cannot be sold as bottled milk. Because sales of fluid milk are fairly constant year-'round but farmers' production is higher in spring, some milk will be surplus and will bring lower prices when it is used for manufacturing. These prices are established by following the competitive prices paid at manufacturing plants outside the regulated area.

The final price per hundredweight you receive as a dairy farmer would be a "blend price"—an average of the returns from both classes of milk. As is evident, if most of your milk is sold as Class I milk, your blend price will be higher than if only half is sold as this class. Most dairy farmers are paid under the "market-wide pool" system, whereby the value of all milk delivered to processors from all farmers in the marketing area is combined, with all farmers getting the same blend price.

In addition, most marketing orders have an incentive pricing plan included to encourage farmers to produce less milk during the plentiful spring months but more during the low production months of October-November. This is a "base-excess" plan whereby the farmer's average production during a normal four- to six-month period makes up his base. He is then paid one price for quantities within this base, but a lower price for additional milk. This is where many hard feelings are made, such as the farmer we discussed earlier, in times of increased production. However, producers may establish a new base each year.

How are milk marketing orders brought about? You and the majority of the dairy farmers in your area must request a hearing by the USDA, usually through your milk cooperative. If a need for a marketing order is found, a public hearing is scheduled for all farmers, milk handlers, and even consumers to discuss their views. Then the USDA issues a recommended decision and considers exceptions to its findings. The Secretary of Agriculture reviews the findings and approves the order. Now it must be approved by two thirds of the dairy farmers supplying the proposed area.

If approved, the order usually covers an area where the same handlers sell their milk; in other words, in an area where the wholesale and retail milk is processed and sold. The marketing orders are supervised by market administrators responsible to the USDA. These men audit and verify that the order is receiving fair practices from both farmers and milk handlers. As a safety check, half of the participating farmers or the Secretary of Agriculture can terminate the marketing order at any time they feel it no longer serves its intended purpose.

Last year some 187,000 farmers were participating in 83 Federal marketing areas. The future of these milk orders lies in the way they are accepted and understood by the nation's dairy farmers.

How about a FARM FORUM?

Many FFA leaders feel there is no better way to develop effective public speaking and leadership.

HAVE YOU thought of organizing a farm forum in your chapter or district? Forum contests have become as popular in many states as public speaking or parliamentary procedure. New York, a pioneer in farm forums, has sponsored a state farm forum contest for the past five years and sends along some suggested rules for others to follow.

A farm forum is actually a team of approximately five Future Farmers with one designated as chairman and moderator. Approximately 20 minutes before the contest is to begin, an agricultural topic is given to the group for their study. This will be their topic of discussion. Two members will take the affirmative side of the question, while two will take the negative approach. The fifth member, or chairman, moderates the discussion. Each member has about two minutes to express his views. Winning teams are then selected.

New York's forum contest originally began as an outgrowth of their state leadership training program. To train state officers to speak intelligently without notes on various subjects, the officer group was divided into equal sides and given a topic on a current agricultural problem. One group would discuss one side of the question, while the other group took the opposite side. The state officers became so enthusiastic about this activity that New York decided to try it as a chapter contest.

It was becoming evident to New York vo-ag officials that Future Farmers would need training to express themselves at group and community meetings. A subcommittee was formed to develop a contest to meet their needs. In 1958, an official state farm forum contest was formed and official rules sent out to all chapters.

Each summer an executive committee selects a subject for the farm forum contest for the year. In 1963-64, for instance, it is "Current Agricultural Problems." Then the FFA executive secretary selects more detailed subjects within this topic for discussion at each contest level. Last year, the chapter topic was "The diversion of large acreage of good farm lands for residential, recreational, or public use is an economical solution of the agricultural surplus problem." Each chapter team had 20 minutes to plan its discussion with its advisor before the contest.

Local chapters compete within their county groups for a winner. This winning team, selected under the direction of the group FFA advisor, competes in one of six district contests. These are conducted by a state vice president and involve a different topic to discuss. These winners go on to the state contest where selected state officers conduct the program and advisors of second-place district winners serve as judges.

Commercial sponsors provide awards of $300 for the district contests. These are broken down to provide $25, $15, and $10 to the top three teams in each district. The state award comes partly from FFA Foundation funds and partly from the state association. In addition, the state winner receives a plaque.

New York is proud of its farm forum contest. At the 1962 National FFA Convention, the Perry, New York, team gave a demonstration for all to see. They invite other chapters and other states to follow their farm forum lead.

The Boonville Chapter in action in the farm forum contest at the New York FFA Convention.

This Perry, New York, team was selected to demonstrate forums to 1962 National Convention.

PATH TO NATIONAL PRESIDENT

Nels J. Ackerson, national president of the FFA.

Nels Ackerson traveled the FFA path with determination to learn first, then excel.

"WHAT MAKES the United States great is our freedom to be UNequal—to do better or worse than the man next to us . . . as we choose!" And the slim Indiana farm youth who recently spoke these words chose to do better than the average, for he is Nels Ackerson, national president of the FFA.

Raised on a 238-acre farm some 20 miles north of Indianapolis, Indiana, Nels Ackerson entered vocational agriculture with a determination to do his very best. In the five years since that September day, he has been president of his Westfield Chapter, the Fifth FFA District, the Indiana FFA Association, and finally national president, the highest student office the FFA can offer.

But 19-year-old Nels was not born with these leadership qualities. They were developed by taking advantage of all the FFA offers—all that is available to every Future Farmer. "Vo-ag and FFA became the avenue for Nels to learn to do much more," his professor, Phil Teske of Purdue, told us. Nels's father agreed. "The FFA has probably been the major factor in his growth—physically, mentally, socially, and spiritually."

Nels worked hard his first year of vo-ag. With encouragement from Advisor Bill Padgett, he began his supervised farming program with a steer and half interest in six dairy cows. "We had never fed beef cattle before," Nels explained. "I wanted to learn more about other types of farming." He did learn and his first experience was far from profitable. In fact, he made only 90 cents on the steer the first year, but as he told us, "The experience could not be equalled."

"When I was a Green Hand, I was really green about the FFA," Nels went on. "I knew very little about our organization and even less about what influence it could have on my life." But Nels participated in every activity he could. He volunteered for judging contests, learned to conduct meetings, solve problems, cooperate with others, speak in public, and assume responsibility. Most of all, he was learning the lessons of leadership.

Few opportunities for experience and leadership were turned down by Nels. "No one in our chapter had ever entered the public speaking contest, but as a sophomore I entered in the district—not even knowing there was a state winner or a national contest." Nels placed second in the state on his first try, and as he told his advisor, "My attempt to do something that I thought I couldn't proved to be the turning point in my FFA life."

He returned home to become active in high school government and was elected president of both his junior and senior classes. Effective speaking, Nels knew, is one of the most important qualities needed for effective leadership. Practice gave him confidence, poise, and ability—all essential for a future national president of the FFA.

And all the while he expanded his farming program for the day he would come back to Westfield to farm. From beef and dairy cows, he went into corn and soybeans, then poultry, and finally hay. By his senior year, Nels bought into a one-third partnership with his father on 47 dairy cows, 119 acres of corn, and 60 acres of soybeans. He bought one half of the family's line of farm machinery and earned a net worth of over $10,000.

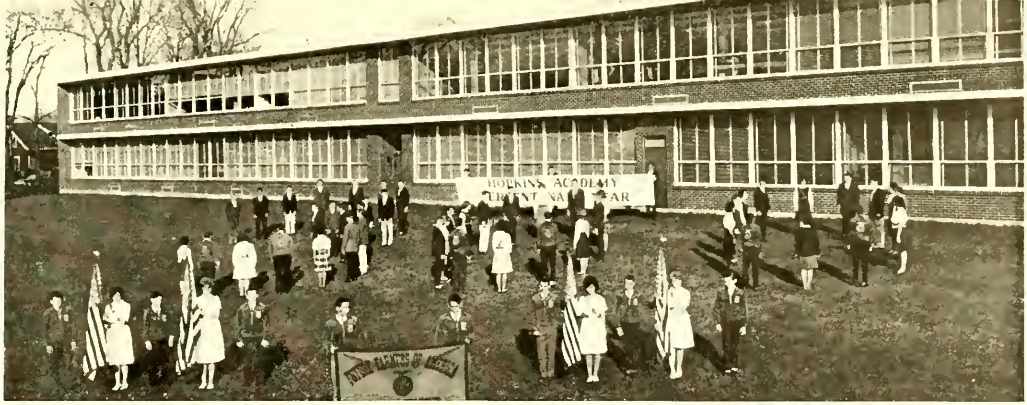
Opportunities to attend state and national meetings came up from time to time, and Nels participated whenever possible. He was appointed delegate to conventions of the Youthpower Conference and the American Institute of Cooperation. He was on hand for radio programs, FFA banquets, and agricultural meetings. It wasn't long before he had addressed the Indiana State Legislature, the Indiana Fair Board, appeared on TV interviews, and delivered the valedictorian address when he graduated at the top of his high school class. As president of the Indiana FFA Association, he gave 48 major addresses in less than a year.

Nels's college choice was Purdue University, and as was true in high school, he was elected president of his class. He served in the student senate and helped rule on the freshman class council. All the while, he was earning a straight "A" average.

"I look back on my experiences in the FFA and see that they are not too different from those of every Future Farmer," Nels explains. "All of the Green Hands of today will not become national presidents, but some of them will. Although the backgrounds of all Future Farmers are different, their opportunities in the FFA and their responsibilities are not too different from mine. Perhaps this poem best expresses my thoughts:

"It makes little difference where I have been
Or what I have seen or done.
The fact that I serve the task at hand
Will soon tell if I've lost or won.
For there is no job that is better than mine
And mine is no better than yours.
To use what I have, and to do all that I can
Is the only deed that endures."

Most important to remember, the path he traveled is open to all who wear the blue FFA jacket.



Future Farmers and Future Homemakers gather outside the new Hopkins Academy to spell out "300," their school's birthday.

Three Anniversaries At Hopkins

FUTURE FARMERS will gather at Hopkins Academy in historic Hadley, Massachusetts, to celebrate three important anniversaries during National FFA Week. It was 300 years ago this year that the Hopkins Academy, now their high school, was formed. Then, 55 years ago, vocational agriculture came to Hopkins, nine years before the famous Smith-Hughes Act made the program national. And finally, 35 years ago marked the beginning of the FFA, an organization that was to bring a new era for all students of the vo-ag course.

Activities began at Hopkins last fall for the triple anniversaries as chapter president, Mitch Smigielski, and members planned for a year of celebrations. What better way to pay tribute to the Hopkins heritage than with a special school ceremony and the massing of the flags of all the states? Members selected an FFA queen, sponsored a harvest dance, hosted the western Massachusetts leadership training school, and prepared radio and TV programs and FFA exhibits to tell their story to all.

They would climax the special year with a spring celebration, including a parade and a Historical Banquet. FFA members decided. A guest list of nearly 300 persons at the Triple Anniversary Banquet will include previous members of the Hopkins Chapter, state agriculture officials, state FFA officers, representatives from the national FFA organization, and former advisors of the chapter. It would help make a year to remember!

The proud heritage behind vo-ag at Hopkins Academy began in 1908, 245 years after the will of Edward Hopkins granted that a school be formed there. When F. E. Heald took charge in 1908 as agriculture instructor, his goal was to upgrade agricultural production on the surrounding Connecticut Valley farms. He required all students to maintain productive projects, and was one of the first instructors anywhere to make on-the-farm visits during the summer months.

Interest in the agricultural course grew among young farmers in the Hadley area. There were few opportunities for students to get practical study in farming in those days before the Smith-Hughes Act and the FFA. One group of students was so enthusiastic, in fact, that they pedaled their bicycles as far as 30 miles over the New England hills to participate in agricultural shows and fairs. Back at the Academy, they were following up classwork with work in the orchards, truck farms, and livestock regions around Hadley. Some years Hadley students trimmed and grafted nearly 5,000 fruit trees in nearby orchards.

One of the most outstanding vo-ag students at Hadley in 1920-23 was Osborne West. Under his vo-ag instructor's supervision, he raised 2½ acres of corn, 128 chickens, two thirds of an acre of vegetables, a pig, 400 celery plants, and 12 apple trees for a total labor income of $3,156—quite a sum in those days. In 1921, he was state corn growing champion, and outstanding state agricultural youth three years later. Today, Osborne West farms 300 acres near Hadley, and three sons have all graduated from the same course at Hopkins Academy—a tribute to 55 years of vo-ag at Hopkins.

Hundreds of graduates have left the agriculture course at Hopkins since Osborne West. Many still farm in the fertile Connecticut Valley that prompted vo-ag to come to Hadley more than half a century ago. Today, with a modern vo-ag department, an FFA chapter of 28 members, and a heritage as rich as any chapter in the country, Advisor Frank Wilson guides Hopkins Future Farmers to even greater heights. Their three anniversaries have already helped bring a better agriculture to Hadley.

Agriculture students from Hopkins Academy judged poultry as this photograph was taken over 40 years ago! The chapter members pose at right with Advisor Frank Wilson in 1963.

THE FARM LOAN

By Raymond Schuessler

Adequate farm credit planning can put the "future" in your long-term farming program.

CREDIT CAN play a useful part in building a good farm business. It can speed farm ownership, make the farm more productive and efficient, and help increase income.

But it is important for young farmers to know all about why, when, how, and where to get credit.

Operating, or "short-term," loans are made for annual expenditures such as seed, fertilizer, hired labor, and gasoline. Farmers may also get credit for living expenses. Operating loans are usually made for one year or less, but they may be renewed under certain conditions.

If you want to buy a farm, more land, or build a new barn, you will need a large loan with a long time in which to repay it. Or you may want to consolidate your short-term loans so you can make payments over a longer period. If you apply for a long-term loan of this kind, you will be asked to give a mortgage on your farm as security. Farm-mortgage loans may have repayment terms as long as 30 years.

Banks and production credit associations are the main source of shorter term operating and working capital loans. The FHA also makes such loans in many instances. Merchants, dealers, finance companies, landlords, cotton-gin operators, and canning companies are other sources.

Life insurance companies, Federal Land Banks, local commercial banks, the FHA, and individuals are the most common sources of longer term farm-mortgage loans. Check in your locality for a credit union or additional sources of credit that may be good.

Life insurance companies are an important source of farm-mortgage loans in many parts of the country. Their loans, which may amount to about half the value of the farm, usually have terms of 20 years or less. If you make extra payments on a loan of this kind, the lender may let you skip some later installments if you run into drought, low prices, or other trouble.

Federal Land Bank loans are made through national farm loan associations. The amount loaned depends on the farmer's experience and the quality of the farm, but is often about half the value of the farm.

Borrowers must buy stock in their local Land Bank cooperative equal to 5 percent of the loan. These loans are amortized with payments on an annual or semiannual basis. The terms range from five to 40 years. The borrower is permitted to repay the principal without penalty. Federal Land Banks also pay interest on deposits made with them that are to be used for payments in the future.

Commercial banks provide almost half of all shorter term credit used by farmers. Your local banker is a good person to know—not only as a source of credit but also for the financial advice he can give you. Commercial banks make farm-mortgage loans for shorter terms than insurance companies and Land Banks. Most loans are made for terms shorter than 10 years. Usually they can be renewed.

Your bank may be able to arrange a longer term loan for you with a life insurance company. Long-term loans may also be available under the insured loan program of the Farmers Home Administration. Compared with the interest rates charged by Federal Land Banks and life insurance companies, the interest rates charged by banks are usually higher, while the amount loaned is smaller.

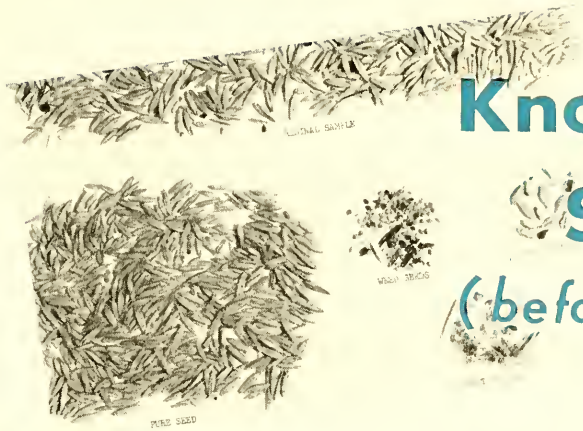
The Farmers Home Administration makes loans to farmers who cannot get adequate financing elsewhere on reasonable terms. Terms range up to seven years. A limited number of long-term loans are made to help farmers buy and develop farms and to help them construct and repair farm buildings. Interest rates on these loans are low, and the terms range up to 40 years.

Production credit associations are cooperatives organized under the Farm Credit System which make loans solely to farmers. Borrowers, as association members, must own or buy stock in their PCA equal to 5 percent of the loan. A PCA is available to every agricultural county in the United States. Loans may be used for any sound farm or family purpose and for terms as long as two, three, and sometimes five years. Terms are similar to those of banks. Many PCA loans are made on a budget plan: For instance, money is advanced to the farmer as needed, and repaid as sales are made.

In addition to interest, lenders frequently charge certain fees. On a long-term loan for which the lender is given a mortgage on the farm as security, there is usually a fee for investigating the borrower and appraising the property.

Also, you as the borrower will probably be expected to pay such costs as recording the mortgage and the lawyer's fees for searching the title and closing the loan. On short-term loans, you may be charged an inspection fee and a fee for recording a chattel mortgage. On a small loan, a minimum fee may be charged.

The wise use of credit begins with wise expenditures. When you consider a purchase, try to evaluate its necessity or benefit. Is it an emergency? A luxury? Is it important to conserve your available cash for something else? What would you lose by waiting until you can pay cash? ◆◆◆



Know Your Seed

(before you plant)

A careful check of your seed this spring can spare you the woes of a crop failure.

By

Marion Viccars

Sample of seed placed in large laboratory germinators tells percent of seeds that will sprout.

Samples are taken with borer from seed storage, then tested.

"THEY WERE the best looking oats I'd ever seen—plump and bright. Good growing weather, too. But they just didn't come up." Many a farmer has been fooled by the look—or the price—of the seed he planted. Troubles of crops failing and weeds dominating were too frequent before seed laws existed.

Today all states have seed laws requiring that seed be truthfully labeled. Such laws require that seed which is labeled "85 percent germination," for instance, must actually germinate within eight or nine points of 85 percent when it's checked by an official laboratory. Pure seed must also be within a few points of the percentage appearing on the label.

In addition to state seed laws, a Federal seed law has been in effect since 1939. This requires that seed moving from one state to another be labeled correctly in compliance with the law of the state into which the seed is shipped. The Federal seed law also checks the quality of imported seed.

State seed laboratories constantly check, by means of purity and germination tests, seed samples picked up by state inspectors. The seed laws apply only to seed offered for sale. Farmers who grow their own seed may sell it to a neighbor without its being tested, providing the buyer picks it up and the seed was not advertised.

Unfortunately, there's a common practice among farmers of buying seed from a neighbor without benefit of cleaning or testing because the seed looks good. You can't tell the germination of seed by its appearance.

While all information on the label is important, the most vital figures are the percentage of pure seed, the percentage of weeds, the number of noxious weeds per pound, and germination.

Samples at the state laboratory are thoroughly mixed and subdivided down to a "working sample." Seed by seed the working sample is examined. All weeds and other crop and inert material (anything that cannot grow) are removed and weighed separately as well as the remaining pure seed, and the percentage of each is computed.

In most cases a larger amount is examined for noxious weeds; these are weeds extremely difficult to eradicate. Dodder, perennial sow thistle, wild onion, quackgrass, and horse nettle are some examples. Johnsongrass is a noxious weed in many states and must be reported if present.

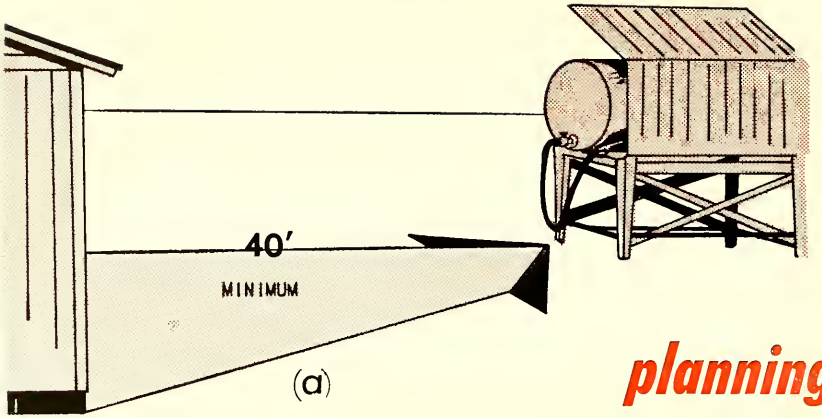
Seed analysts learn to recognize several hundred weed seeds on sight; a reference seed collection in each laboratory contains thousands more, and an analyst makes use of this when an unknown seed is found. It's essential that the analyst identify all seeds found in a sample; often by doing so, a serious weed infestation can be averted.

Germination is most important to farmers, for if the germination is poor, the investment in land, labor, and fertilizer may be lost or seriously affected. One farmer planted grass seed for winter grazing. When weeds at the fence rows came up but no grass in the field, he sent a sample to his state seed laboratory. Result: germination 25 percent instead of the 85 percent on the label. This man got his money back, although this didn't provide grazing for his cows or pay him for his time.

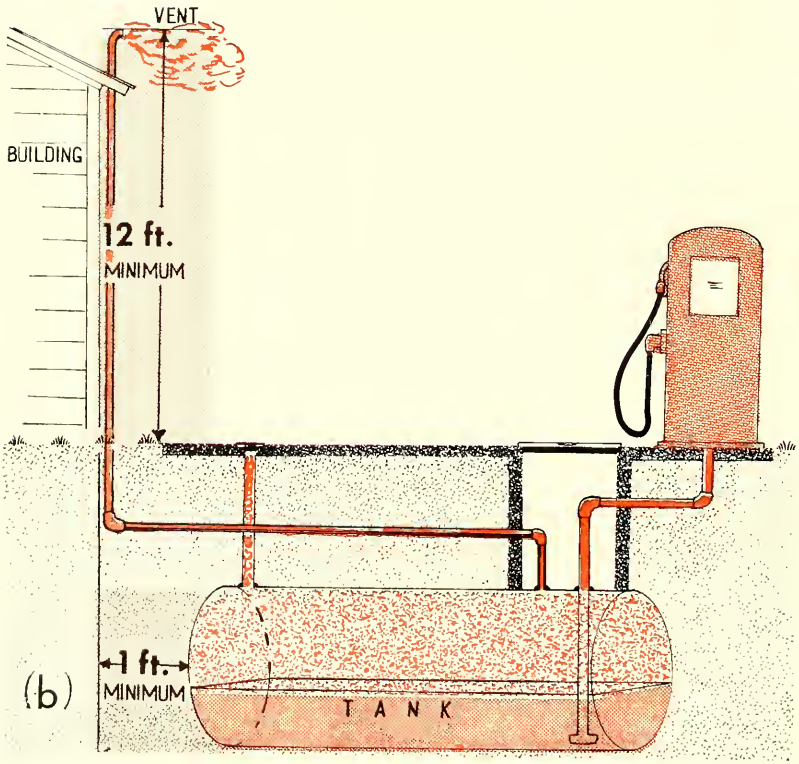
Any farmer can protect himself by keeping the label from the bag and retaining a small sample of the seed. Some seedsmen employ their own seed analysts; others send their seed samples to an independent laboratory for testing. It is these results that are used on the labels. Seedsmen are required by law to keep records.

Certified seed, on the other hand, goes beyond the testing stage. In addition, it is carefully supervised during production, processing, and marketing. Although there are some exceptions, you can usually be safe if the seed is labeled "certified."

If you produce your own seed or if a neighbor offers to sell you seed that he's grown, by all means take a sample and have it tested. Send the sample to a seed laboratory—either the official laboratory in your state or an independent commercial laboratory. The analysis report will give you the needed information for planting and may protect you from costly losses—well worth the investment of a few dollars once or twice a year. ◆◆◆



planning your farm fuel center



Above ground fuel storage tank, as shown at top of page, should be at least 40 feet from the closest building. If you bury your tank (bottom), it may be as close as one foot from shed.

You'll need to protect your fuel from evaporation, gum deposits, dirt, and water for economical operation of machinery.

FARM mechanization brings the need for an equipped service center at the farmer's doorstep. Gasoline, kerosene, and lubricants need to be stored conveniently in adequate amounts to be available when you need them. It's not hard for you as Future Farmers to plan and build your own fuel center with a tank, some steel drums, and a few safety rules to follow.

Most important of all is storing your gasoline. If you live on an average farm, a 300-gallon steel tank is more than adequate. However, the best way to determine the size for you is by figuring how much gas you'll use in a 30-day period. It's best not to store gasoline more than a month because of gum deposits that form in the tank.

Since the gasoline tank forms the center of a fuel center, you'll need to decide whether it will be buried below ground level or placed on an elevated platform. Specialists argue both ways on which is best, and either method has its advantages. With above-ground installations, evaporation is a problem. For unprotected 300-gallon tanks in summer, research shows that as much as 10 gallons per month may evaporate. And because lighter fuels are used in winter, this loss may be nearly as great in cold weather.

Several methods of reducing evaporation losses from exposed tanks have been used effectively. One way is to build a roof over the tank or place the tank near a shade tree to reduce the sun's rays. Another method is to paint the tank a reflective color such as white or aluminum, and still another way is to install a pressure-vacuum relief valve available from most hardware stores. This valve keeps the tank sealed except when the pressure inside exceeds three pounds per square inch. Only then does it permit vapor to escape.

Above-ground tanks should be at least 40 feet from the closest building for safety's sake. They will need to be elevated at least six inches off the ground to prevent corrosion. Best way to install such a tank is on a well-built rack. You'll want to place the tank on a slight hill so that heavy gas vapors can drain away before causing a hazard. And just as important, you should label your exposed tank with the words "GASOLINE—INFLAMMABLE."

Another safety feature is a valve that closes automatically in the event of a fire if your tank is gravity-fed. This valve has a fuse link that melts, closing the entrance to the gasoline tank in case the tractor or spilled fuel catches fire.

Underground storage tanks do away with the problems of evaporation and fire. The USDA recommends this type of tank installed with either a hand or electric pump. With an underground tank, it can be as close as one foot from buildings such as your machine shed. It should be placed on a firm foundation surrounded with well-tamped soft earth or sand, and be covered with at least two feet of earth. The area where the tank is buried should be well drained to prevent flooding, and some type of weight or anchor attached to the tank to prevent it from floating out of the ground.

Be sure to check the tank for leaks or weak spots before burying it. And a coating of an asphalt tar will resist corrosion from moisture. Don't fill around the tank with cinders or ashes as they tend to corrode metal that isn't well protected. There is virtually no fuel loss, water condensation, or gum depositing with underground tanks; however, the initial cost may be more since many oil companies supply an above-ground tank and pump free of charge.

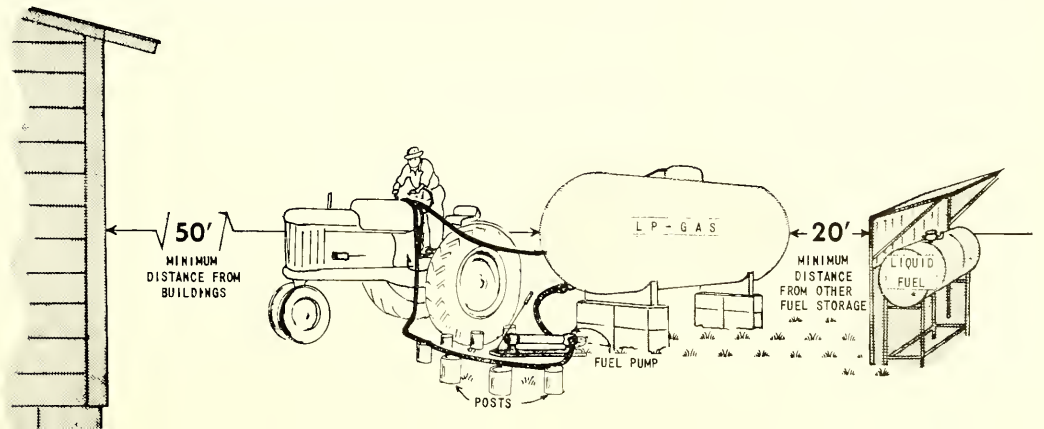
Engineers agree that it's best to leave approximately 50 feet on one side of the gasoline tank to permit machinery to be maneuvered. It should be located in the general area of your machinery shed, and should have a gravel base around it to protect from puddles of fuel and mud. The choice of pump types is yours, but many models of both hand and electric types are on the market.

Once the tank is put in place, you'll want to consider storage of other volatile items such as kerosene and lubricants. Kerosene can be stored in much the same way as gasoline. Elevated steel drums at least 40 feet from buildings and labeled "KEROSENE" are desirable. Never store kerosene in buildings.

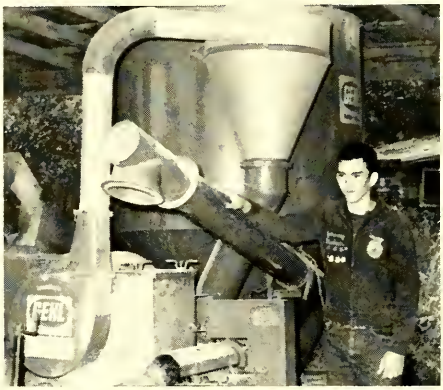
Tractor lubricants must be protected from dirt, water, and sunlight. Most oils and greases now contain additives, and contact with water will greatly decrease their effectiveness. Greases can be purchased in either cartridge form or in metal pails and stored in a small building or shed near the tank. Paint the shed red, label it properly, and provide hooks so that your funnels, grease guns, and spouts can be hung up away from dirt. Shelves for cans of oil, grease cartridges, and the bucket of grease are recommended. A metal roof on the small shed will protect the lubricants from heat and moisture. The gasoline tank, kerosene storage, and lubricant shed can be located in a line so that all materials are readily available in one area.

Your fuel center is now completed. It isn't expensive and the benefits, both convenience and safety-wise, are evident all year long.

If you store LP gas, your tank should be filled to only 85 percent capacity. Locate it at least 50 feet from buildings and no closer than 20 feet from your gasoline storage area. Rest the pump on posts to prevent damage to it or the hoses.



These Berkshire pigs will bring Johnny a tidy return after a few months.



Home-grown grains, plus supplements, are mixed here under Johnny's care.

Expert ON RATIONS

Johnny Meehan saves $35 a ton on his swine rations.

THE registered Berkshires on Johnny Meehan's 211-acre family farm near Pendleton, South Carolina, enjoy expertly balanced rations—and Johnny is saving as much as $35 per ton of feed at the same time. It's all due to the fact that Johnny is grinding and mixing his own hog feed from his own home-grown grains.

There are now more than 140 top-grade Berkshires on the Meehan farm, including 14 sows that farrowed this past fall. Among the lot there have been the grand champion pen of barrows at the South Carolina State Fair, the grand champion open gilt, and the highest selling open gilt in the 1963 Southeastern Berkshire Type Conference. And they all belong to Johnny, one of the most outstanding young hog breeders in his area of the country.

You can credit much of Johnny's success with hogs and ration-balancing to his advisor, R. M. Jones. It was Advisor Jones, along with Professor Dale Handlin of Clemson College, who helped the active Future Farmer select his first bred gilt in February, 1961. The gilt farrowed a litter of 10 pigs, three of which were champion barrows. With the money he bought the grand champion open gilt that year at the state fair.

The following spring, Johnny pooled his money from some beef cattle he sold with the prize money from his gilt, and bought a champion boar at a type conference in Staunton, Virginia. He had proved his worth in getting top hogs; now he had to feed them properly to maintain the quality that was bred into them.

His next step was to plan and prepare his own swine ration. He began to devote much of his time to raising quality grains on the home farm such as milo, barley, oats, and corn. He did his own plowing and planted nearly 70 acres of small grains and corn, using only quality seed. So good were Johnny's crops that they won honors at his local county fair.

He purchased his own grinder-mixer to permit him to prepare his ration as he needed it. With Advisor Jones's guidance, Johnny learned to grind and mix balanced rations using his own grain and adding a 40 percent protein supplement and minerals. For economy's sake, he trades part of his grain to the local miller for wheat bran to mix with his sow ration. The commercial supplement is the only ingredient he buys.

Johnny's rations are tailor-made and vary with the planned use. For instance, his nursing pig ration contains 16 percent crude protein, his starting ration has 18 percent, his growing ration contains 14 percent, and his fattening ration has 12 percent crude protein. The ingredients may change a bit, depending on the grains available and the condition of the pasture.

These three barrows were grand champion pen at 1961 South Carolina Fair.

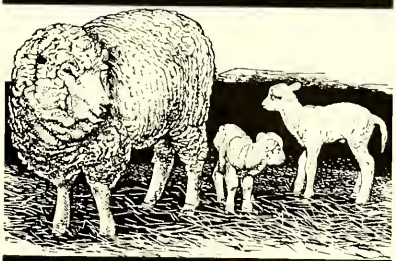
By raising his own grain, he often saves as much as $25 per ton of feed. Then by doing his own grinding and mixing, he saves another $10 per ton. This past year he produced 164 bushels of corn per acre on his bottom land, 55 bushels of barley per acre, and 74 bushels of oats per acre. These above-average yields help him produce cheaper feed for his hogs.

His success with hogs is credited in large part to his advisor and his vo-ag training. As Johnny puts it, "Mr. Jones has helped me in the classroom, in the afternoon, and at night. Without him, I could not have done half as much."

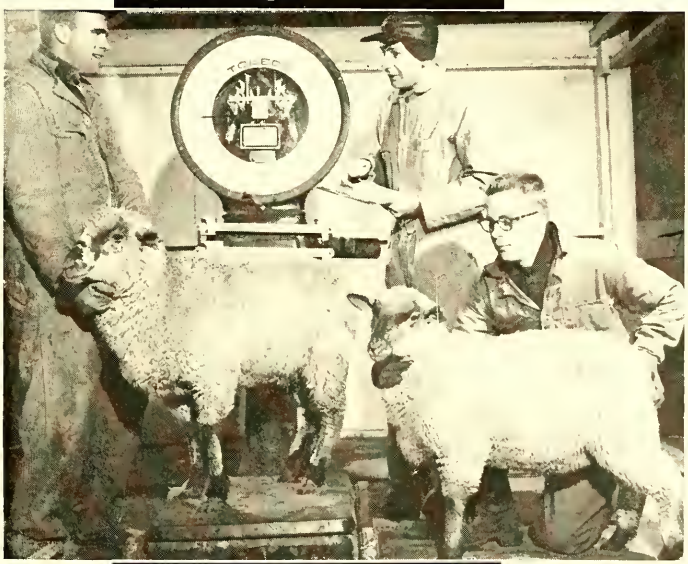
It won't be long until the champion hog raiser will go off to Clemson College to major in animal husbandry. When he does, he will add to the knowledge learned from experience with quality rations and champion hogs.

Will Sheep Add To Your Income?

Lambing time is here again and many Future Farmers will be considering sheep as a possible supervised farming enterprise. Ohio State University economists tell us prices for market lambs should average slightly higher this year because of a decrease in lamb slaughter. This U. S. Department of Agriculture researcher brings you up to date on lamb production and what you'll need to be a success with sheep.—Ed.



by George Sidwell



Lamb on right was fed poor corn and hay ration; gained only 13 pounds in 52 days. Left lamb gained 46 pounds on new ration.

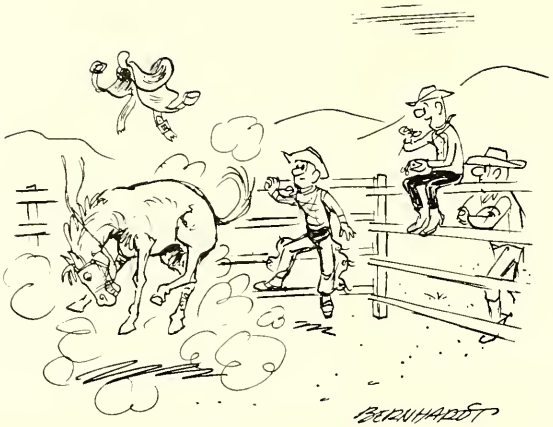
SHEEP produce two cash crops each year—wool and lambs. The wool crop from farm flocks in the U. S. averages about eight pounds per ewe, with the range being from four to 12 pounds. This wool, if properly prepared for market, will sell for about 50 cents per pound. The national average last year was 47.7 cents. The USDA considers domestic wool a strategic commodity and adds an additional payment aimed at bringing the price per pound to 62 cents. Thus, the value of your eight-pound fleece would be about $5.

It is not uncommon for farm flocks to produce a 150 percent lamb crop, although the average is close to 105. Assuming 106 lambs were weaned from a flock of 100 ewes, you could expect 53 of these lambs to be ram lambs and 53 ewe lambs. From the 53 ram lambs five should be kept for breeding flock replacement; and from the 53 ewe lambs, about 30 should be kept for replacements, leaving 23 ewe lambs for sale. These 71 market lambs should weigh about 80 pounds at 120 days of age, depending on the breed of sheep and how well they have been cared for.

Good quality market lambs have sold previously for about 20 cents per pound. The 71 lambs which weigh 80 pounds each should then bring $1,136, or an average of $11.36 per ewe bred. This figure, plus the $5 from the sale of wool, brings the total gross return to over $16 per ewe. There would be some additional value from the sale of aged sheep, manure credit, etc. The net returns per ewe would be the amount left after feed costs, labor costs, and shearing costs have been deducted. All of these costs vary from area to area.

Your facilities available will determine the size of your farm flock. The limiting factors are pasture for grazing and shed or barn space during the months when the flock needs to be housed and fed. The equipment necessary for sheep raising need not be

(Continued on Page 36)



"Still figure on riding him?"

(Continued)

Will Sheep Add To Your Income?

expensive, but should be adequate to insure good management practices.

Basic equipment, in addition to the barn or shed, should include adequate feeder space and feed storage facilities. Salt and fresh water should be made available at all times. Probably the most essential equipment for any farm flock enterprise is a good dog-proof fence that encloses enough pasture to allow a frequent pasture rotation. This rotation is the first step in controlling internal parasites.

Other items of equipment include shearing facilities and a good corral equipped with a cutting chute. Ear tagging equipment is also necessary for sheep identification. This is a must if you raise purebred sheep.

Most sheep are seasonal breeders and are most fertile in the late fall months. Ordinarily, sheep give birth to their first lambs at two years of age. The length of time from breeding to lambing in sheep is about 145-150 days. Thus, ewes bred in September lamb in February. Lambs born early in the winter have an opportunity to reach weanling age (120 days) before the warm summer months when the parasite problem becomes serious. However, this early lambing requires weather-proof barns in which to have the lambs born.

Good quality legume hay, preferably alfalfa, helps make an economical winter ration. Three to four pounds of alfalfa hay each day is enough for a ewe weighing less than 140 pounds. About a month before lambing, the hay should be supplemented with ½ to ¾ pound of grain per day. Lambs begin to eat grain as early as three weeks of age, and a good creep feeder should be made available to them until all market lambs are sold.

The choice of a breed is often personal preference, modified by whether you wish to raise sheep for wool production, lamb production, or both wool and lamb. Individual excellence of animals is important, and good or bad sheep exist in all breeds. Purebreeding or registry is not synonymous with quality, merit, or productivity.

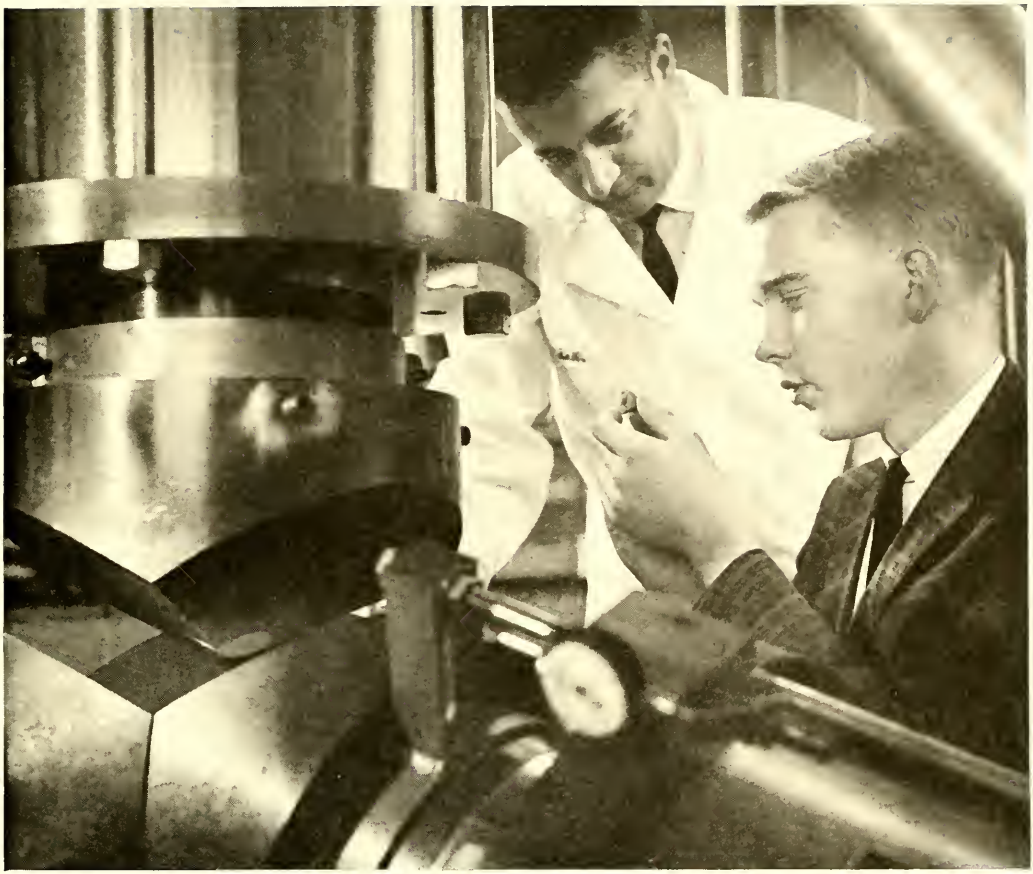
If you are interested in wool production, with lambs as a secondary consideration, pay attention to the wool-producing qualities such as staple length, wool density, and body size. In choosing between individual sheep, the wool length should be measured over a 12-month period.

Actual fleece weights should be taken at shearing time and the fleeces inspected for defects such as the presence of black or brown fibers, hairiness, or kempiness. Sheep with excessive body folds are difficult to shear, produce wool lacking in uniformity, and are more susceptible to fly strike.

For Future Farmers interested in lamb production, traits concerned with pounds of lamb weaned per ewe bred are important. These include size in the ewe and ram, since large lambs are not produced from small parents. Daily gain and final weaning weight are important since lamb is sold by the pound. Sheep free from wool covering on the face produce more pounds of lamb than do sheep with covered faces. And ewes that produce and raise twins are often the difference between profit and loss in the farm sheep enterprise.

It seems logical that sheep capable of producing both an abundance of good quality wool and satisfactory market lambs should be most profitable. Several breeds are available that can be classed in this dual purpose role. However, more care must be exercised in selecting these sheep since more traits must be considered. Happy sheep raising! ◆◆◆

"Let's see if the manual has anything to say about this."



Jim Carr, high school senior, watches GM scientist operate hydraulic tetrahedral anvil press that creates 100,000-atmosphere conditions and re-arranges internal structures of test materials.

how to squeeze the most out of matter

Two hundred miles straight down from where you're sitting, the temperature is 5000°F. and every square inch has 1½ million pounds of pressure on it.

But within the four jaws of the massive press above, GM scientists can bring these extreme conditions to bear on the metals and non-metals they study in their laboratories.

Why do they do this?

To learn more about the puzzling changes in structure that occur in materials as they go from a solid to a liquid when the pressure is really put on them.

For example, most solids expand while they melt. A few—such as ice—take up less space as they become a liquid. GM researchers have found remarkable materials that do both—expand when they melt at low pressures, contract when they melt at high pressures. Such changes may produce new structures with unusual mechanical or electrical properties—properties that GM engineers may use in products of the future.

Extraordinary? General Motors people don't think so. Because they know that making things better demands a constant, exhaustive and all-around search. Not just into new manufacturing methods, but into new materials, as well.

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Jim Carr, from St. Thomas Catholic High School in Ann Arbor, Michigan, was a recent visitor at GM's Technical Center. He's taking a special basic course in physical science. Jim is secretary of his school's chapter of the Junior Engineering Technical Society. In athletics, he has lettered in basketball, track and cross country.

rifles, rights, and responsibility

By Howard Carter

ARMED WITH his first single-shot .22 rifle, plinking at tin cans, drawing a bead on a frisky squirrel, or knocking over a bouncing cotton-tail — these are taken-for-granted pleasures of most boys and young men in rural America. That it will continue to be so perhaps shouldn't be taken for granted.

When you got that first rifle of your very own, there were two things you got along with it you may not have thought about. You received a "right" and accepted a "responsibility."

Article Two of the Bill of Rights in our Constitution states, ". . . the right of the people to keep and bear arms shall not be infringed." Like your other traditional and constitutional rights, this one should not be taken for granted either.

From time to time, additional restrictions on gun buying and ownership are proposed. Usually these restrictions are sought to help accomplish seemingly worthwhile ends. The three arguments most often used in proposing greater control measures are: (1) help reduce gun accidents; (2) help prevent crime; and (3) help solve crimes.

Certainly, these are worthwhile goals. But, let's consider whether or not they can be achieved by control measures more strict than those we already have, without violating constitutional rights.

For the first argument, it goes without saying that guns do not cause accidents; people do. This argument is like saying bathtubs cause accidents, so people shouldn't own bathtubs. Firearm and hunting accidents are tragic as are all accidents, but education and safety awareness are the best answer to prevention. You can help by practicing safety in handling firearms and backing educational programs promoting gun safety. Each accident creates one more horror story that will be used to support the claim that the average American cannot be trusted with a gun.

The second argument that more strict control will help stop crime is equally illogical. If a criminal cannot buy a gun, he will steal one. Previously law-abiding citizens who commit a crime on impulse will use any weapon at hand. Professional criminals can easily sidestep restrictive measures through illicit arms traffic and prey on a defenseless public.

The third argument that control measures help solve some crimes is perhaps true. If the criminal is thoughtful enough to register his gun beforehand and hasn't swiped it, then is careless enough to leave it behind, it undoubtedly aids the police investigation. But, is it not unfair to punish the estimated 30 million law-abiding American gun owners in order to possibly solve just a few cases? Individual liberty for responsible citizens in a free nation is worth some risk.

The tragic assassination of President Kennedy has caused much discussion and emotional concern over the private ownership of guns. It should be pointed out that as a senator from Massachusetts, in 1960, John F. Kennedy publicly defended the Second Amendment and our constitutional right to keep and bear arms. He was also a member of the National Rifle Association.

That the right to keep and bear arms is occasionally threatened, however, is evidence of the great responsibility that goes with such a right. As teen-agers, your responsibility as present and future gun owners, for example, is considerably greater than that of adults. Already, most states have laws restricting the sale of guns to minors, so certainly you'll want to abide by them to keep the laws from becoming more restrictive. Do not try to purchase mail-order handguns or revolvers or try to get around the other laws.

Instead, join a reputable gun club or The National Rifle Association where you can acquire and shoot such weapons legally with supervision. Also, most police departments and law enforcement agencies welcome the opportunity to work with young people on gun safety and marksmanship.

Looking at the other side to see the need for strengthening and encouraging gun ownership, sport shooting, hunting, and familiarity with firearms, instead of restricting them, we need only consider the following: A recent U.S. Army training manual reported, "Revolutionary War soldiers did a better job with their muskets than soldiers of World War II and Korea were able to do with their superb rifles."

In some instances, military experts found, American soldiers in Korea fired up to 10,000 rounds of small arms ammunition for each enemy soldier hit. Some of this fire was meant to keep the enemy "dug in" rather than to cause casualties. But the statistics did indicate a great deal of ammunition was wasted.

It was pointed out that an industrial society couldn't produce nearly as many good shots as a backwoods society—where men relied on their rifles to hunt for food and protect themselves against hostile Indians. Army marksmanship training programs underwent radical changes that are believed to have vastly improved the capabilities of America's rifle-carrying soldiers.

But even these training programs were not enough as long as city-bred recruits who entered the service lacked experience in handling firearms. The Army, in cooperation with arms and ammunition manufacturers, launched numerous programs in the 1950's to rekindle the interest of ordinary citizens in the traditions of American marksmanship.

Educational materials, rifles, ammunition, targets, and other materials have been provided for schools and gun clubs. Films, pamphlets, and competitive shooting matches have given new life to this tradition—a tradition in which rural youth has held a prominent place.

So, even though that first rifle came to you as your right to keep and bear arms, you now have the responsibility to prove you deserve that right. Handle your weapon carefully, enjoy it safely, and keep a sharp shooting eye!

◆◆◆

DON'T JOIN THE ARMY UNLESS

...unless you want to learn a valuable skill.

...unless you want to earn college credits at Army expense.

...unless you want to develop leadership abilities most men never achieve.

...unless you have a yen to see the rest of the world.

But if you want to achieve all four—and get started the minute you graduate—go talk with your local Army recruiter. You *can* accomplish all of these goals in today's new action Army.

The Army will also give you something else you've never had before: the feeling of standing on your own—a man among men—in the most highly respected organization in the world. It's a great feeling that starts the minute you put on Army green... and it's a kind of feeling you'll never forget.

If you're good enough to get in...a proud future can be yours in the new action

Army

Crutches Aren't For Leaning

Asa and a pet Shetland pony make an inseparable pair in the exercise lot.

Advisor Adrian Acosta goes over books with Asa in the Easton Chapter room.

The story of Asa Pease, polio victim, is one of a brave Future Farmer whose dream was to raise and train horses, even though a crippling disease confined him to crutches.

By James Williams

NINETEEN-year-old Asa Pease is a Future Farmer who didn't have much of a future in agriculture until he hitched his hopes to a string of three Shetland ponies.

For "Ace," as FFA members at Washington Union High School in Easton, California, called him, has been a victim of paralytic polio since he was four months old.

One of an 11-member family, Asa has always wanted to earn his living training horses, a rather strange ambition for a boy who spent the first 14 years of his life in and out of hospitals and who still needs crutches and braces to get around. But to the plucky Future Farmer, the idea is as natural as if he were, in rangeland lingo, "born in the saddle."

"In fact," Asa recalls, "about all my folks have heard from me since I can remember is horses, horses, and more horses. They've tried to talk me into settling for some office job, but I don't think I could take being shut up indoors. I need to be out in the open doing some type of farming work."

The work Asa is hoping will keep him outdoors is training ponies for children to ride. About two years ago, the young Future Farmer began an Ohio correspondence course in training horses. Then last year he sold his FFA dairy project, which consisted of 11 calves, and with the help of some additional bank financing, made his first purchase of three Shetlands—a black colt which he named Dink, a sorrel stallion called Prince, and his favorite, a small dappled sorrel Shetland named Jiggs. "It's going to be hard for me to sell this one," Asa mused sadly after retrieving Jiggs from a nearby alfalfa field.

Young Pease describes his work as simply "gentling down" ponies for children. This is not as simple a task as it seems. It takes a lot of patience and effort to turn a skittish, half-wild Shetland into a pony which can be trusted to lug around unpredictable children on its back.

"First I get the horses used to someone's being around them," the aspiring horse trainer explains. "Sometimes I even bang on tin pans to get the animals accustomed to loud, sudden noise. Then, of course, feeding, petting, and riding them takes up plenty of my time."

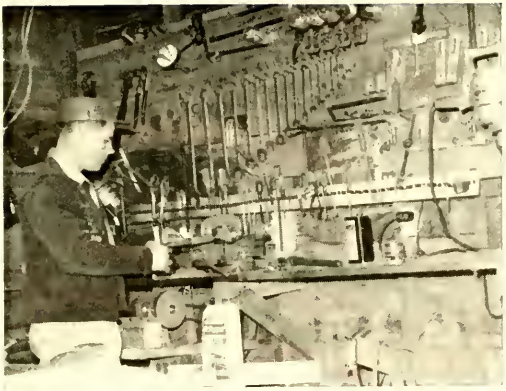
It takes up enough of his time so he has little to spare for extracurricular activities or just hanging around town. But he was never too busy to participate in FFA activities. He was a member of the Easton Chapter's dairy judging team since he enrolled as a freshman and was chapter treasurer for two years.

Adrian Acosta, the school's FFA advisor, does not hesitate in his praise of Asa Pease. "One thing about him," Acosta volunteered, "he is a real worker. If he falls down or fails at something, he doesn't lie there making excuses because of his handicap. He gets right up and makes another try at it. And he usually succeeds," he added.

Although he has bought and paid for his first three horses and most of the equipment needed to train them, including a $45 pint-sized saddle ("I think I paid a little too much for it," he admits), the Future Farmer's future is still rather uncertain. His plans include college and a technical agriculture course. His only income, however, is that made from training and selling ponies, plus some part-time work.

Asa allows himself one seemingly modest dream. Some day he would like to buy a two-year-old Arabian, or even a young foal, and train it to ride in local horse shows.

Just maybe, those three Shetlands started him down the path to realizing that dream. ◆◆◆



Local farm equipment dealers put on programs at Young Farmer meetings to help Bobby get more from his farm shop.

Farm mechanics instruction through Young Farmer classes helps Bobby Neal keep economy in operating machinery.

Bobby Neal

Fills the learning gap!

Young Farmer groups, such as the one Bobby Neal helped form, can give you important help as you begin to farm.

Ribbons and awards from high school FFA work surround Bobby. Vo-ag experience is valuable for a Young Farmer.

MORE THAN one graduate Future Farmer has wondered how he could continue studying agriculture while keeping his farm operating. With college out of the question because of farm responsibilities, he meets an apparent after-high-school gap.

This was all too familiar to 19-year-old Bobby Neal when he returned from the 1960 National Convention with his American Farmer Degree. Ever since he entered vo-ag in his small hometown of Whiteface, Texas, he had planned for the FFA's highest degree.

As a Green Hand, he had bought a Hereford cow and calf, building up his herd to 24 cows and heifers. Gilts, grain sorghum, and cotton graced the fields on his father's ranch, while leadership activities such as the district presidency and area State Star Farmer kept him busy in off times.

But now his immediate goal was reached. His FFA activities and classes were coming to an end; and yet, with the added responsibilities of farming, he needed additional instruction. In Whiteface there seemed to be no place to turn for such instruction.

The first logical place that Bobby stopped one free afternoon was the Whiteface High School to talk with his former advisor, James Carroll. The problem wasn't new; nor was it especially difficult to solve. All Advisor Carroll needed was several local farmers to show interest in a Young Farmers' organization. Night classes and farm visits could be planned to keep members informed of the latest agricultural information. All they needed were local young farmers with a similar need.

Interest wasn't long in coming, and Bobby met with several neighboring farmers to form the Whiteface Young Farmer chapter. Plans were drawn up for monthly meetings to solve the needs of young members as they saw fit. Bobby was named program chairman of the group, with responsibility to get good educational and recreational programs for each meeting. If he failed, the chapter's purpose would fail.

Now, after two years, the Whiteface Young Farmer group hasn't missed a month with its well-planned meetings. Each summer the young farmers invite their wives and families along to a swimming party, complete with an ice cream and cake supper. Winter meetings include some of the most capable college personnel and local implement dealers as speakers and demonstrators. Attendance has grown.

Bobby Neal hasn't really stopped to list the many advantages that membership in the Young Farmer organization has given him. But he'll surely agree it's the best place to sit down with local farmers his own age to discuss farming problems and solutions.

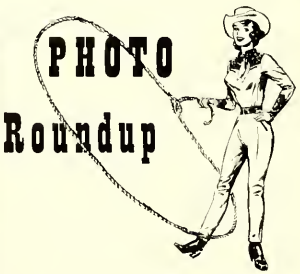
"It'll increase interest in farming through planned family recreation for younger farmers," Advisor Carroll readily agrees. "You know this is one area that is too often overlooked."

Whatever your status after high school graduation, you'll be missing out on a wealth of agricultural information and companionship if you permit yourself to fall into the after-school gap. If no Young Farmer group exists in your home community, drop in to talk the situation over with your former advisor. Some of your friends might come along to get details, too. That few minutes of inquiring has paid rich dividends for "Bobby Neals" all over the country. ◆◆◆

Bill Skandahl of the Harrison, Nebraska, Chapter needed a hay lift to gather forage, so he designed his own. He stripped down a jeep chassis, reversed the seat and steering, then built a fork on the rear hitch, now the front of the vehicle.

When Anderson Union Chapter's bulk feed bin was completed by the Farm Shop II class, the California FFA members celebrated with a group picture. The new bin had been a class project.

Future Farmers from the Orosi, California, Chapter dress up in FFA jackets and ties and man the yard markers at all home football games. Now in its second year, it's good public relations, so says Advisor John Sylvia.



"Future Farmers Point the Way to Agriculture's Better Day" signs appear around Joy, Illinois, thanks to members of the Westmer Chapter. Signs are furnished by the Illinois University.

Beneath palm trees and citrus groves, members of the Tampa, Florida, Chapter posed before boarding a chartered bus for the National Convention. The cross-country bus trip gave Future Farmers a view of the countryside.

4 EARS WHERE ONLY 3 GREW BEFORE!

FUNK'S G HYBRID ®

Today, increasing your corn yields —and profits—is more certain than ever before. Thousands of farmers are reporting yields 10, 20, 25, 30% higher than ever before. On many farms this is the equivalent of four good ears where only three grew before.

These vastly more profitable harvests stem directly from the work of a remarkable team of plant breeders. They lifted the old lid on corn yields by developing a whole new group of hybrids with more capacity to produce. And with these new hybrids, was built the simple 3-step corn production plan called the Trio of High Profit Practices . . .

1 Start with a high capacity FUNK'S G-HYBRID*...

2 Plant it THICKER...

3 APPLY EXTRA FERTILIZER to feed the extra plants.

If corn—marketed through livestock or as cash grain—represents a major part of your income, here is your greatest opportunity to increase your farm's volume of returns.

It's easy to put this plan to work on your farm. You just start from where you are. Your Funk's G-Hybrid Dealer has the High Capacity Hybrids and the easy-to-use Work Sheet which tells you exactly how to join this happier and more prosperous group of corn growers.

*Funk's G-Hybrid is the registered trademark of Funk Bros. Seed Co., Bloomington, Illinois.

THE PRODUCERS OF FUNK'S G-HYBRIDS

THE FFA IN ACTION

Across the U. S. A., Future Farmers Are "Learning to Do; Doing To Learn: Earning To Live; and Living To Serve."

INDIANA—A few weeks before Christmas, Future Farmers from chapters in Whitley County, Indiana, wrestled some 80 purebred pigs up the gangway and into a waiting air transport. They were completing the final link in a chain of goodwill that sent foundation swine to the Dominican Republic to build a swine industry.

The "Pigs for Peace" program began when a Fort Wayne radio station asked for pennies to buy pigs for underdeveloped Latin American countries. Donations came in from every state, plus Canada and Mexico, and 80 pigs were purchased.

Future Farmers loaded the pigs into trucks at the farms, then drove them to the airport where the big transport was waiting. After every pig was loaded, officials of the project treated FFA members to a breakfast at the airport. Next year another country will receive pigs with Future Farmer help.

Out of the truck and up the plane's gangway goes another pig bound for South America. Radio station official watches below and inspector checks each animal above. Before the loading was completed, a total of 80 pigs came aboard.

VIRGINIA — This past season Larry Howdyshell combined the second crop of a new grain he brought to his area around Sangerville. The crop is spelt, a grain that looks like a cross between wheat and oats and is grown in parts of Europe for food. Larry first saw the unusual crop growing in Ohio and brought seed back to Virginia, sowing it in the fall of 1961. "Wanted to try something different," he told his advisor, William Simmons."

He found the grain germinated slower than wheat, probably due to the heavy chaff that covers the kernels even after combining. This past year, Larry harvested 70 bushels to the acre and 66 bales of straw despite the drought.

If you're interested in growing spelt and live south of Virginia, Larry can tell you this about the grain: It is a species of wheat used for feed grain for cows and hogs. It isn't very winter hardy, is about equal to oats in feeding value, and can be threshed with an ordinary combine. Happy spelt growing!

It's time to refill the apple machine, and Willard members pitch in to do it.

OHIO—Members of the Willard FFA Chapter have a unique idea that not only makes money but helps keep fellow schoolmates healthy as well. It's a coin-operated, refrigerated apple machine that dispenses the juicy fruit for either 5 or 10 cents, depending on the cost to the FFA.

Willard members bought the machine through a local orchard and installed it in January, 1954, in a hall adjoining the school cafeteria. The apples are bought from local orchardists, and the machine is kept full by a Future Farmer committee. Ten years of apples sales have proved profitable, indeed.

Students buy the fruit at the rate of six to seven bushels per week, bringing in a sizable revenue to the chapter. Last year earnings amounted to $588, and over $313 was collected from March through November of 1963.

Warning signs such as this one were erected on the main roads leading into town as a final reminder to motorists.

MONTANA—It was last May when members of the Huntley Project Chapter decided to help the local Lions Club clean up the area's roadways. Future Farmers policed the roads mile by mile walking behind trucks to pick up bottles, cartons, and all types of trash. Before the project was completed, nine large truckloads of trash were gathered from the roads and hauled to the local dump.

With all the effort put out to clean the roadways, FFA members decided it would contribute much more to the community if conditions were kept this way. They started a survey among farmers, the highway department, the railroads, and the local irrigation district for their cooperation. Signs from the local highway engineer declaring a $25 fine for littering were installed on the main road into the community, and as a final activity, a 30-minute TV program on community improvement was staged by Future Farmers. The results have paid off, according to Advisor Dean Pence.

A greenhouse similar to this one will help Siletz FFA members study plants.

OREGON—A new greenhouse for the Siletz Chapter is fast becoming a reality. The 39- by 15-foot structure has been in the plans of Siletz Future Farmers ever since they studied similar greenhouse projects at Oregon State University. A new greenhouse was needed to house a propagation bed and individual experiments for chapter members.

After a lot of study, members made a plan to build a greenhouse from steel pipe and plastic covering, the two products best able to withstand the weather common to the Oregon coast. It will be completed in time for early spring use as members contribute their time and tools to help build it. And they expect to complete the greenhouse and install water, heating, and electrical systems for less than $500.

COLORADO — Now members of the McClave Chapter are in the feed milling business. A complete feed mill was furnished the chapter by a local agricultural agency on a loan basis, and servicing and adjusting are contributed by the same firm as a service to the Future Farmers.

Grains and concentrates from both FFA members and local farmers are brought to the chapter mill and made into a balanced ration at slightly above operating cost. For the past year, members and farmers have been getting rations at the rate of 10 tons per month under the supervision of members and advisor, Sidney Koon. Two McClave Future Farmers have been put in charge of the milling operation, while a girl from the high school does records and bookkeeping.

A nearby steel building for storage was furnished by an alfalfa milling company to accompany the mill. The result has been more balanced rations, better livestock feeding programs, and practical experience for a chapter of Future Farmers.

The final step before opening the feed mill was a sign over the mill entrance.

CALIFORNIA—This past fall, word got around the community of Hamilton City that the Sam McClain family was in danger of losing the entire crop of 15 acres of walnuts due to family illness. So Hamilton City FFA Chapter president, Ned Mason, suggested that fellow Future Farmers help in the harvest.

Forty chapter members responded to the McClain farm the next day and pitched in to bring in the nuts. In three hours the nut crop was harvested and hauled to the dryer. Advisor Gershon Rosen called it a complete success.

A grateful Mrs. McClain met the Future Farmers after the work was completed and told them, "I didn't think that people did this kind of thing anymore. We will always remember this kind and generous act."

IOWA—Community safety involves all 90 members of the Mount Ayr Chapter each year at corn harvest time. Class safety chairmen briefed Future Farmers on corn harvest safety and the farming area to be covered. A goal of 15 farmers per member was set. The program was explained to community leaders and an advertisement placed in the local newspaper.

Subjects such as the value of a human life, local accidents that had happened, and ways to insure safety around corn pickers were emphasized to the farmers. Before each member left, he gave the farmer safety stickers for his equipment, a table tent card for the dining room table, and a gatepost sign for the entrance of the farm. All in all, 1,129 farmers were contacted before the season was over.

Now in its seventh year, the corn harvest safety program has earned the Mount Ayr Chapter a certificate of merit and trips to various safety council meetings, both local and national.

Chapter safety committee made four- by eight-foot board to record all visits.

Emmett Barker, right, American Feed Manufacturers Association, goes over career material before the interview.

Careers for You in the Feed Industry

THERE ARE opportunities for you as Future Farmers in the modern feed industry! This was made evident recently by Emmett Barker, director of public relations for the American Feed Manufacturers Association, and a former Tennessee FFA officer and holder of the American Farmer Degree.

His personal interview with four prominent Future Farmers—Leon Zimmerman, national poultry winner from Fredericksburg, Pennsylvania; Marvin Gibson, national FFA vice president from Maryville, Tennessee; Robert Cummins, Star Farmer of America from Warsaw, New York; and Jim Stitzlein, Ohio FFA president from Ashland, Ohio—turned into a lively discussion. Here, for your information, is what they said:

Barker: "Feed manufacturing is the largest manufacturing industry in the world that exclusively serves agriculture. This is why we are so vitally interested in having young men with agricultural backgrounds enter our industry. Every year nearly 50 million tons of commercial formula feeds are made by some 6,000 feed manufacturers and distributed through approximately 25,000 feed dealers. Over 100,000 people are employed in this task.

"There are many opportunities for boys who have an interest in agriculture. We need engineers, chemists, accountants, salesmen, farm managers, livestock and poultry specialists, advertising men, store managers, and many, many more to serve modern animal agriculture."

Marvin: *"Are these opportunities open to all FFA boys?"*

Barker: "They sure are! There are jobs awaiting FFA boys with almost any type training and background. Of course, the more technical jobs require advanced educational training. For example, nutritionists would be expected to have quite a lot of college work. This is verified by a recent study made on the educational levels of feed company nutritionists. They average 18.5 years. However, there are many other excellent opportunities that require only a high school education."

Jim: *"Is there any special training that a young person should have if he plans to go into the feed industry?"*

Barker: "This is determined by the particular job in which he is interested. Engineers, accountants, chemists, and nutritionists, for instance, require special advanced training. Many of the jobs require men with a general education and specialization in a particular subject. A poultry specialist would need a good agricultural background with particular emphasis on poultry. A salesman would need an all-around agricultural background with special subjects in the animal-poultry sciences, as well as business training."

Robert: *"Do you feel a boy who has been brought up on the farm with vo-ag training could work into many jobs with little further education—say with sales and service or as local feed store manager?"*

Barker: "This is a very good point. Too many boys with this type training have left agriculture to go into factory work. They are not taking advantage of their agricultural background. The feed industry can absorb a great number of these young men. As I pointed out earlier, there are over 25,000 feed dealers and about 6,000 manufacturers. These people need employees who can speak the farmer's language and who have a real understanding of the problems associated with livestock and poultry production.

"Sales and service work is an excellent area for a boy with this type education. Most companies have good programs for store managers and sales service people. They can teach you many of the essentials of your job. Yes, there are many outstanding opportunities for boys without college training to enter into successful careers in the feed industry."

Leon: *"But will these individuals have much of a chance against those who do have advanced college training?"*

Barker: "This is up to the individual! If he has the initiative, the interest, and the desire to get ahead, he can educate himself to where, in many cases, he can compete with the fellows with college degrees."

Jim: *"For boys who desire a college education, are there scholarships made available by feed companies?"*

Barker: "Nearly all major feed manufacturers and many feed dealers participate in scholarship programs. These may range from individual grants to contributions for general scholarship funds at various colleges."

Marvin: *"What pay ranges can a person expect in the feed industry?"*

Barker: "In a recent survey of feed manufacturers, they expected to pay from $4,000 to $6,500 for a college graduate starting in their business. This would allow increased pay scales to those with advanced degrees and technical training. This salary range is in keeping with agribusiness averages."

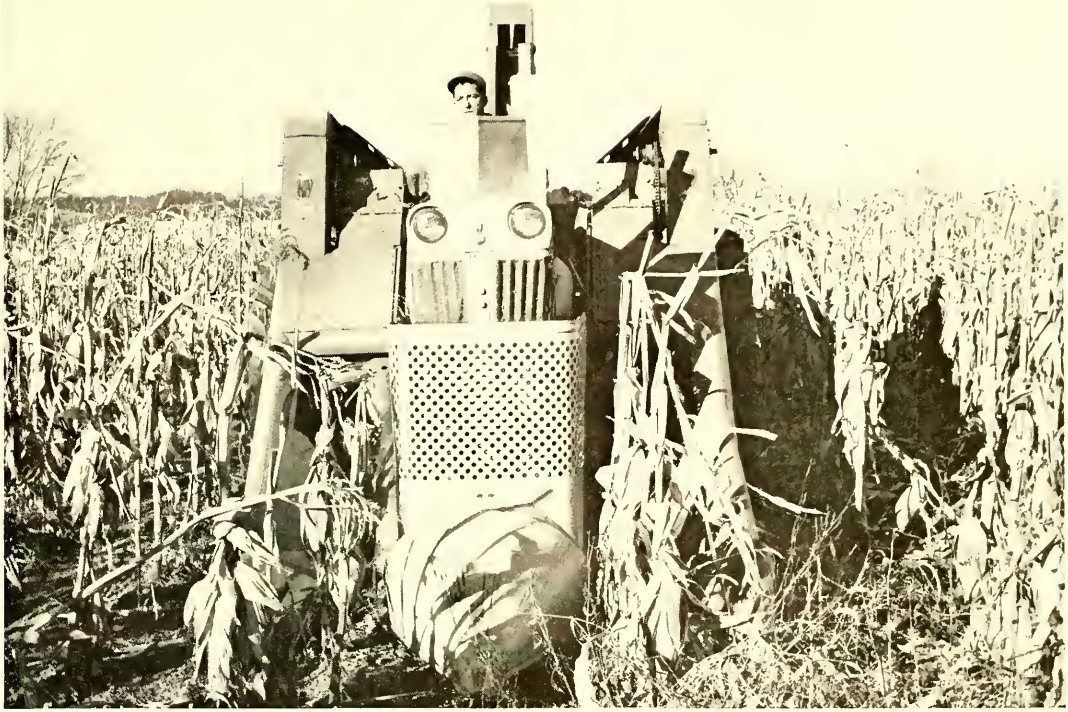
Leon: *"Do you feel a boy is better off to go into the feed industry right out of school, or do you think he should get more education?"*

Barker: "The average financial success for our population applies accurately to the feed industry. A person with a college degree can expect to earn in his lifetime about $125,000 more than a person with just a high school diploma. This would indicate that an individual would enjoy greater financial success if he had college training.

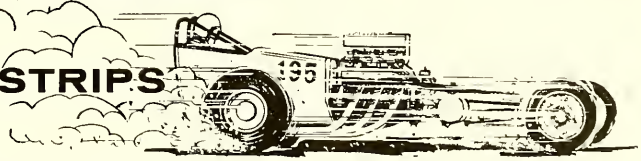
"However, even if a person does not have an education on the college level, he still has many excellent opportunities open to him in the feed industry. You can see many opportunities for a person with agricultural training to be of valuable service to farmers and to the feed industry. At the same time, he is able to enjoy a satisfactory degree of financial success."

Robert: *"Where can an FFA member find out more about the feed industry?*

Barker: "By writing to me: Emmett Barker, Director of Public Relations, American Feed Manufacturers Association, 53 West Jackson Boulevard, Chicago, Illinois 60604."



CORN ROWS ARE DIFFERENT FROM DRAG STRIPS



Raw power — rev it up, gun it and go for a few brief seconds. That's the only thing that counts on a drag strip. Not so in the field. Here it's *power control* that counts — power that can be matched instantly to changing loads.

Case tractors are famous for power, controlled for most effective use. Take the 5-6 plow Case 830 tractor, for example. Its engine is not a comparatively small one revved up to get a few extra horses. Its big-bore, long-stroke design and high torque give extra lugging ability for the tough spots.

Then add to this inherent lugging ability the extra wallop you get with Case-o-matic *torque converter* drive. It controls your power by *sensing* the load and automatically delivering up to double pull-power when you need it . . . not too much, but in exact proportion to the load. No shifting . . . no stalling.

This really pays off at corn picking time when power requirements often see-saw up and down. Wet spots, damp corn, heavy stalks and down corn change the load of both picking mechanism and the tractor's forward motion. Case *torque converter* drive keeps step with these changes automatically.

Ask your Case dealer to give you and your dad a demonstration of Case power control. See what it means in bigger capacity, easier operation, and longer tractor life.

Take a look at the NEW **CASE**®

J. I. CASE COMPANY, RACINE, WISCONSIN

Pipe is center of radiation field. Cobalt inside affects surrounding plant growth.

The Atom:

WORKHORSE FOR FARMERS

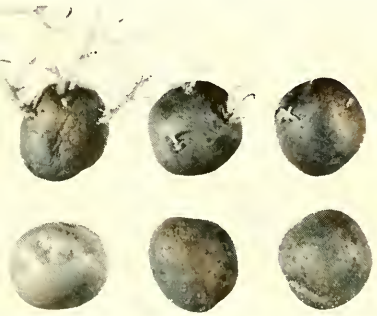
By Kelvin Coventry

PRECISELY at 3:25 p.m., December 2, 1942, beneath the west stands of Stagg Field, Chicago, scientists harnessed a workhorse that is revolutionizing farming.

Men in white coats huddled around instruments and watched and listened as the clickety-click of the counters became a steady "brrrr." Stern faces broke into smiles as the world's first self-sustaining nuclear reaction took place. The Atomic Age was born!

The farm has never been the same since the atom became a hired hand. It helped bring forth a new species of rust-resistant oats and saved farmers 100 million dollars a year. It helped to enrich the soil and improve crops. It has even helped chickens to lay more eggs.

Rays kept potatoes from sprouting. One not exposed sprouted, spoiled.



Take a tool like the gamma ray. Do you know what effect it has on the storage of potatoes? Scientists were eager to find out.

Newly dug potatoes were exposed to varying ranges of radiation. Some were not exposed at all. Those not exposed became soft and sprouted in the normal fashion. Those treated with gamma rays remained essentially firm over long periods of time, thus prolonging their storage life.

Tests are still being conducted to determine whether gamma rays affect the taste, chemical composition, and nutritional values of potatoes.

The peanut has also been blasted by radiation. Results? It offers more resistance to plant diseases and increases the yield. It is still perfectly safe for humans to eat.

A new variety of pea bean in Michigan, called Sanilac, has been developed by radiation. This changed it from a vine-type bean to a bush bean. It ripens 12 days earlier and has an increased yield of some 15 percent.

Suppose the market is flooded with ripe peaches. The entire crop brings a low price because of the abundance at one time. Radiation tests have shown that the Fairhaven peach can be slowed up by at least 10 days from ripening, thus bringing in staggered crops from one orchard.

Most of these experiments were perfected on "atomic" farms before they were ever tried out in actual orchards and on truck farms. One of these atomic farms is located at the Brookhaven National Laboratory at Upton, New York. It's a strange farm.

In the center of the field is a seven-foot iron pipe. It holds the radioactive cobalt which gives off high-energy gamma rays. When no one is in the field, the cobalt is raised so it can effectively react on plants. The gamma rays cause some plants to grow more slowly, others more rapidly.

Ordinarily, it would take thousands of years to produce the changes in plants which the atom does in a few weeks or months. Most of the radiation changes are harmful, but some can be very useful.

One experiment on strawberries had a disastrous effect. The strawberry itself actually grew leaves. "It is probably the most distasteful strawberry ever grown by man," a scientist reported.

Atomic farms have their own "gamma" greenhouses. This is where plants are arranged around a source of atomic energy and bombarded with gamma rays for 20 hours a day. Striking results have occurred.

In carnations and snapdragons, white was turned to red. Some flowers that were predominantly red suddenly turned white. Some flowers came out in intense new rainbow colors. It is expected that more experiments will produce many new and wonderful flowers.

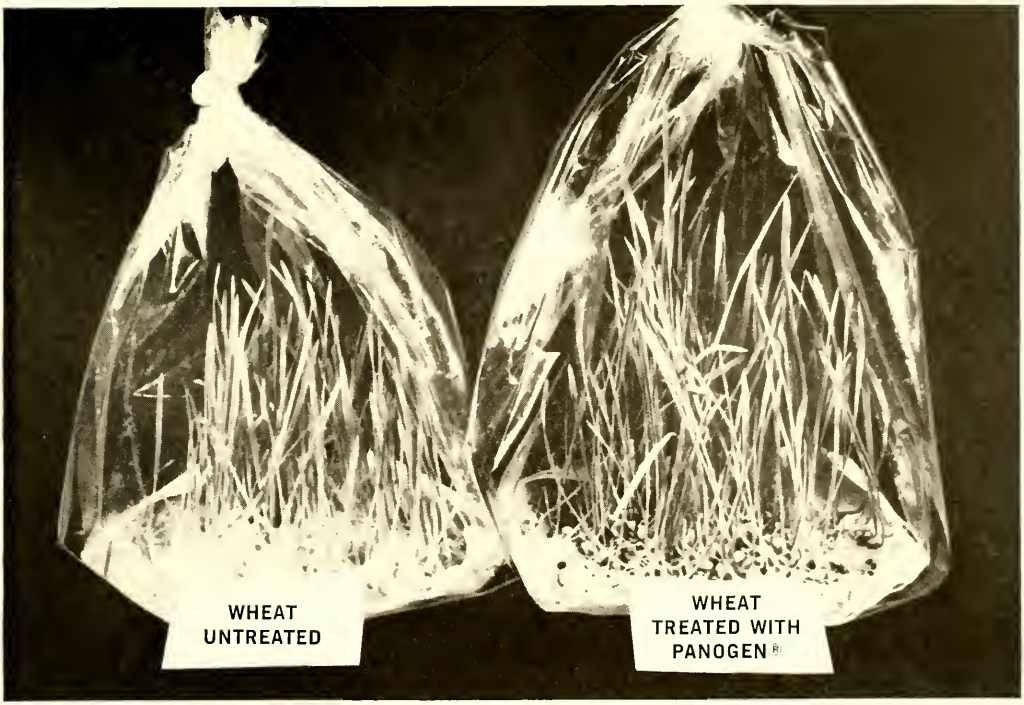
Radioactive isotopes are currently being used as research agents to obtain further knowledge about soils, fertilizers, and growth of plants and animals. More has been learned in four years of research using the atom than in the previous 50 years of study.

For instance, phosphorus fertilizer treated by radioactivity and taken up by plants can actually be seen at work in the leaves. After a leaf has been placed against photographic film, the film is developed. Light traces of plant food against the dark outline of the leaf can be detected.

Photos of this kind can shed light on the concentration of phosphorus necessary to keep a plant healthy under all kinds of conditions.

Scientists are carrying out experiments around the clock at numerous universities and colleges and at more than 40 state agricultural experiment stations, using the atom to find out what plant life needs to produce better products.

The atom started out as a destructive weapon in a dazzling burst of light that took lives and churned the earth into a volcano of dust and debris. Our pledge to the world now promises that this potential death-dealing weapon will be used only for the uplift of mankind. The atom will never find a better use than on the farm. ◆◆◆



Notice the thicker stand and healthier growth with the Panogen-treated seed. (Similar results can be expected by Panogen treating other small grains, flax, cotton, peanuts, safflower, peas and beans.)

Seen by almost 1,000,000 farmers and future farmers

In March of 1963, we offered the Panogen seed treatment plastic bag test kits to County Agents, Vo Ag Teachers and 4-H Leaders to use in meetings and classes as visual proof of the benefits of seed treating. Since then, nearly one-million farmers and future farmers have seen this proof.

The plastic bag test visually proves the benefits of treating seed with Vapor Action Panogen—the world's most widely-used, most thoroughly-proven seed treatment. Through the clear plastic bags, you can see the black and gray disease molds form and spread to kill and weaken seeds. You can also see the clean, healthy look of the Panogen-treated seeds...their absence of mold...and their superior root and foliage development.

When you have seed treated, or recommend seed treatment chemicals for small grains, flax, cotton, peanuts, safflower, peas, and beans—specify Panogen—the Vapor Action Seed Treatment, used for 25 years by farmers all over the world.

There is a limited quantity of the Panogen Seed Treatment plastic bag kits available to County Agents, Vo Ag teachers, 4-H leaders and National Future Farmer Leaders. Write to Morton Chemical Company, c/o J. Greer. *Note: There are six demonstrations per kit.*

Panogen® VAPOR ACTION
SEED TREATMENT

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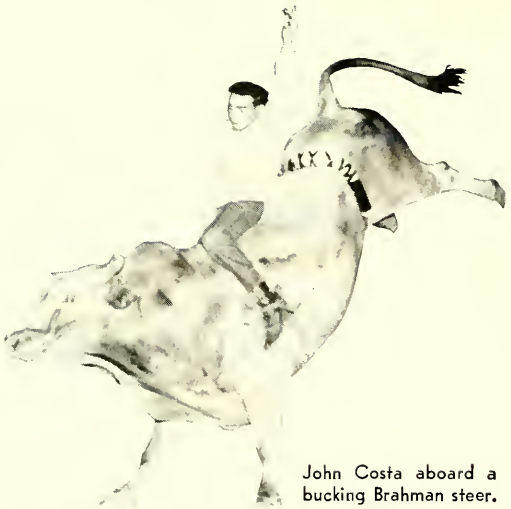
DIVISION OF MORTON SALT COMPANY



John Costa aboard a bucking Brahman steer.

RODEO RIDER

By Walter McDanel

A RIPPLE of excitement ebbs through the crowd as the announcer booms, "Out of Chute 6, on Thundercloud, rider John Costa" . . . this is the rodeo!

Yes, this is truly the rodeo, where man pits his strength and intelligence against the mighty beasts. For the crowds of spectators, it is an enjoyable afternoon, but for John Costa of the Boyertown FFA Chapter, Pennsylvania, it is a way of life to which he aspires.

Seventeen-year-old John, a junior in vo-ag, has been riding Brahman bulls for the past three summers and hopes to make this his vocation, vacation, and avocation.

John's baptism of fire occurred at the age of seven. He grew up on a small farm with diverse animals, but ponies especially took his fancy. At this time, there were two ponies on the farm, one of which was not broken for riding. His dad jokingly promised him he could have the pony if he broke it in—which he promptly did, and had a few bruises to prove it. John says, "That's the only way to do it—get on and ride."

At age 15, John applied for and received a permit to belong to the Rodeo Cowboys Association, which is the world-wide regulatory group that manages the rodeo profession. This permit entitled him to ride in any rodeo which the Association sponsored. John rode all that summer, proved himself to have plenty of stamina and courage, and earned over $200 for his efforts.

He has been coming on like a tornado ever since! This past summer he rode only on weekends in 35 rodeos from Cowtown, New Jersey, to Leesburg, Virginia, and won $474.

The summer of 1961 was spent touring the West with two other rodeo aspirants, working from place to place. This probably accounts for John's great love of the West and its casual way of life. Eventually, he hopes to branch out and take part in the bronc riding and calf roping events in addition to bull riding.

Mr. Costa accompanies his son to all rodeos, as he must give his written permission for John to ride until he is 18 years of age. Also in the stands lending moral support, you can often find Mrs. Costa and the two younger Costa children, Charmaine and Joe.

John's life, of course, will not be complete until he has a little spread in the West where he can further call on his agriculture background. After talking to this mild-mannered Future Farmer, we find adventure beckoning, and we are sure that one day the name of John Costa will be among the winners of the Gold Buckle.

SHEEP FROM BEAR RIVER

HAVE YOU ever tried to lead a sheep? If you had an average run-of-the-mill one, you found out quickly that it was a pretty hard job! But out Utah way you'd find things a bit different. Dick Madsen of the Bear River FFA Chapter not only teaches them to lead but to drive and pull many times their weight.

The whole idea started when the Future Farmer found it impossible to increase his flock of Suffolk ewes because he lived within the city limits of the northern Utah town of Tremonton. Instead, Dick began teaching the ewes to pull a cart. Before long, they were good enough to put on exhibitions for others.

Bear River Future Farmers with an eight-sheep hitch ready for another show.

Teamster Dick, working with his father and younger brothers, put the six ewes through their paces throughout Utah, then on to surrounding western states at livestock expositions and fairs. Word spread and the Great Western Livestock Show at Denver asked him to give daily shows last year before thousands of people.

The ewes work together as a team, but the Future Farmer explains any two can pull a car weighing 4,500 pounds plus a stock trailer of 2,000 pounds, a small wagon weighing 100 pounds, and three boys averaging another 90 pounds. This is a total of 6,870 pounds and doesn't seem to put a strain on the sheep pullers.

Two of the ewes are especially trained to climb a ramp over the top of the car to the top of Dick's trailer, then drink out of a bottle without even a nipple. This is always a hit with the crowds, Dick explains. But not any less startling is how the sheep are trained to drive with the array of harnesses, bridles, and lines. Spectators stand amazed at how quickly the talented ewes respond to the blue-jacketed Future Farmer's commands of "Gee," "Haw," and "Whoa."

Outstanding N.Y. Grower Is 10-Year User Of

Armour Vertagreen For Highest Quality Vegetables

Max V. Shaul of Fultonham, N.Y., has 300 acres in vegetables and 600 in corn . . . all fertilized with Armour Vertagreen. He says: "I have used Vertagreen consistently for 10 years or more because I am quality minded and get higher than average yields by using it."

The finest tribute to the quality of Mr. Shaul's produce is that almost all of it is bought by two of the nation's leading baby food packers, who have most critical standards. "Shaul quality" goes hand-in-hand with impressive yields per acre . . . 30 tons of carrots, 145 bushels of shelled corn, 28 tons of squash and 9 tons of spinach.

Mr. Shaul has been selected as one of 14 U. S. farmers to receive the coveted 1964 Ford Motor Co.'s Farm Efficiency Award for "the ultimate in farm management efficiency." He was also one of 42 outstanding N.Y. farmers selected to make the "People To People" tour of European countries and Russia last year.

Experienced growers like Max Shaul, who use the latest in modern farming techniques, are the ones who are calling Armour Vertagreen the fertilizer that's "Worth More Because It Does More!" Try Vertagreen yourself. Put it to work for higher yields, higher quality in your fields. See your friendly Armour Agent soon.

"Worth More because it Does More!"

ARMOUR AGRICULTURAL CHEMICAL COMPANY

ATLANTA ARMOUR GEORGIA

Vertagreen, premium fertilizer / Mixed fertilizers, bagged and bulk / Ammonium Nitrate Nitrogen Solutions / Anhydrous Ammonia / Ammonium Phosphate / Triple Superphosphate Phosphate Rock / Armagard Pesticides

"The fawn wandered on, its nose lifted to the wind . . ."

RETURN TO NATURE

Fiction by
Kathleen Briggs

BILL CONARD came upon the fawn suddenly. It was curled up in sweet grass and camouflaged by sunlight flickering through fir and cascara trees. The liquid brown eyes met his without fear.

He put out his hand, then drew it back. The mother would reject the young deer if it carried the human scent. But where was the doe?

Bill moved through the fringe of trees into the meadow. The June sun beat down on the wild wheat and huckleberry and fragrant dew-moist earth. Bill's nostrils caught another smell, unpleasant and gamey. He sniffed the air carefully, and his suspicion turned to smouldering disgust. There was blood on the weeds!

The carcass had been dragged to the road, leaving a deep swath through the grass. He followed the track to an old logging trail that led to Eben Gorst's place on the water. There were tire traces in the ruts, but they were too worn to leave a pattern. Bill thought of Gorst's old rattletrap and knew that no other car had been that way in weeks.

Gently he placed the fawn on an old blanket in the station wagon. Now he would pay a visit to Gorst!

As he drove along the dusty road, he wondered angrily what his reception would be. His car carried the state game warden's seal, but Bill was the warden's kid brother. He had no authority. All he could do was report on violations, and he had to be certain of proof.

He could smell the smoking deer meat long before he reached the cabin. Gorst had racks of jerky set up in rows and was tending the low alderwood fires under them. The doe's hide was stretched on a frame, drying in the sun.

Gorst was in his sixties. Through an ancient property mix-up he owned a pie-shaped piece of land that jutted into a big state game preserve. He made a living by hunting, fishing, and selling pieces of driftwood as twisted as his own mean character. He had no friends, and Bill and his older brother, Jack, were Gorst's only close neighbors. Their cabins were four miles apart.

His red-rimmed eyes narrowed as he recognized the car, but he said nothing until Bill got out and walked over to the deer skin.

"What you snooping around for, kid?"

"Shooting deer out of season is some-

thing that comes under my brother's jurisdiction," Bill explained.

Gorst cackled. "He sent a boy to do a man's work, eh?"

Bill's lips tightened. "He's just out of the hospital."

"Yeah, heard tell he broke his arm."

Bill's eyes went to the deer hide and back to the old man. "Well, Mr. Gorst?"

Gorst flicked a stray bit of jerky from his wrist. "No use bein' ornery, boy—I did the critter a kindness. Found her caught in my barbed wire last night. She'd broken a leg and I put her out of her misery fast. Figure a cougar was after her and in the dark she run headlong into my fence. That varmint's been after my chickens for a couple of weeks, and I didn't want it hangin' around a lame deer."

Bill ran his hand over the sleek hide. There were no tears in the skin. He examined the leg bones and found one badly broken. But Gorst could have broken it after killing the doe. The fencing was loose and tangled, but Gorst could have done that also. Bill was beaten and he knew it.

Old Gorst was tricky. He'd destroyed the evidence. The pickup truck would be clean, all blood stains removed.

Gorst noted the disappointment on the boy's face and grinned. "Run along, sonny, you ain't got nothin' to tattle about."

His triumphant cackle still lingered in the air as Bill drove down the narrow road. If only Jack had been with him to see the evidence for himself!

A double arm fracture followed by a bout with pneumonia had laid Jack Conard low. Because of his fine record the Fish and Wildlife Department had given him two months' leave with pay, but they were too shorthanded to appoint a temporary warden for the area. It was understood that 16-year-old Bill would act as Jack's eyes and ears during the next 60 days.

Jack was delighted with the young deer. He taught it to drink out of a pan and grinned at Bill as it nibbled his fingers.

"You'll have trouble proving anything on Gorst, kid. He's a slickster."

Bill was still angry. "He shouldn't get away with it."

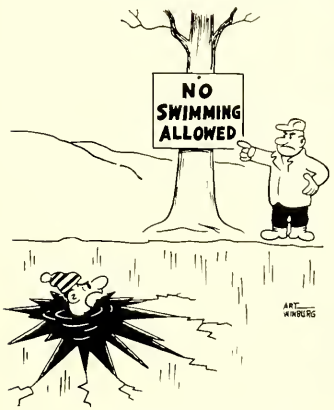
"We'll catch him some day. This time he's done me a favor. The fawn will be good company while my arm is mending."

If Gorst poached deer in the next two months, he was careful to conceal it, and Bill was too busy to waste time trying to catch him.

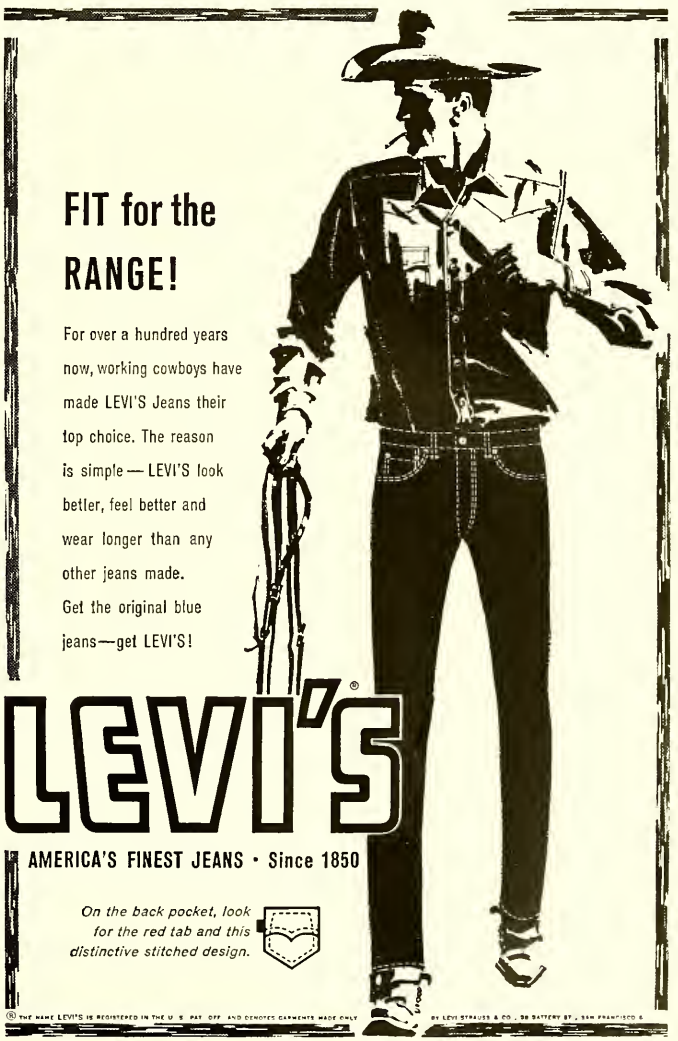
The season was abnormally dry. There were herds of deer in the lowlands, driven down to the edges of civilization for fresh grazing areas. When Bill saw them, his spirits sank. Soon he must let the fawn join them. It was growing strong and healthy with hard, stubby lumps where antlers were sprouting. Human care would make it helpless, and it must learn to forage for itself.

The last of August was hot and muggy with a sultry blue haze covering the land. Jack Conard frowned as he climbed into the station wagon to make the long trip to the city for his final checkup.

(Continued on Page 58)



"I'm not swimming—I'm ice skating!"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Be Prepared for Danger On Ice

Red Cross Photo by Palmer

By Joan Foreman

EACH YEAR millions of Americans venture forth to ice skate. And each year, a certain number have accidents—ranging from sprained ankles and knees to real tragedy.

While some mishaps may have been unavoidable, many are caused by downright carelessness, recklessness, or merely lack of knowledge. With the number of farm ponds increasing, ice accidents can be a real threat to the Future Farmer and his family.

For these reasons, the American Red Cross urges skaters to follow these simple rules on how to avoid trouble and what to do if an accident does occur.

1. Skate on small bodies of water, such as pools, ponds, flooded hollows, slowly flowing streams, and small lakes. They freeze more quickly than larger bodies of water, and the ice on their surfaces is more apt to be smooth and last longer.

2. Never venture out on ice of uneven or unknown quality except when the depth of the water below is not more than waist high.

3. Before taking to the ice, make sure it is thick enough to safely bear your weight. A general guide, easy to remember, is:

One inch of ice—keep off.

Two inches—one person may.

Four inches—O.K. for all.

4. Learn to recognize newly formed ice. It is also called "black ice" because the dark water often shows through the transparent surface. It is dangerous.

5. Never gather on the ice in large groups.

6. Skate with a "buddy" and try to stay close to shore, especially at night.

7. Stay off the ice during thawing spells.

8. Keep ice rescue equipment such as a 12-foot ladder, a pole with a hook on one end, a 15-inch ring buoy with 75-foot Manila line, a crossed 2 by 4, or a long 2 by 4 with cross pieces always at hand. Paint equipment with alternate red and white stripes so it can be seen easily. Show as many persons as possible how to use the equipment.

9. Carry ice picks or carpenter's awls protected by cork in the breast pocket. (Then, in case you fall through, you can remove the protective corks, grab the awls in each hand, and squirm to stronger ice.)

10. Know a method of self-rescue such as kicking the feet to the surface, extending hands and arms forward on the unbroken ice. Thus, you can work your way along the surface. (The prone position on the ice distributes the weight better.) Once on firmer ice, you can roll or squirm to safety.

11. Warn other skaters of hazards which you have noted.

If an accident should occur and you are cast in the rescuer role, Red Cross advises that you warn other skaters away from the scene. Otherwise, a single mishap may develop into a disaster. The victim should be told to take it easy, not to thrash around and waste his energy.

If any type of rescue apparatus is available, such as a ladder, pole, hockey stick, or a line with a ring buoy, it should be obtained as rapidly as possible and skidded across the ice for the victim to grasp and be pulled to safety.

Whenever a line is used, remember that creepers or skates are helpful to obtain a firm grasp on the ice. Otherwise, the victim may pull rescuers across the ice into the water. All other rescue work should be done in a prone position.

If no apparatus is handy, the human chain may be utilized. To form the chain, three to five strong individua's approach as close as safety permits and drop down on the ice, each succeeding person seizing the skate or foot of the man ahead of him. The line then worms its way forward. Once the victim has been grasped, the line inches back to safety.

Should the victim not be breathing when brought to safety, start artificial respiration as soon as possible. (If a shelter is nearby, rush him to the warmer interior, but don't wait to start resuscitation.) Even when artificial respiration is being given, overcoats, sweaters, and blankets can be placed over and under the victim.

Even when your victim is breathing and seems all right, guard against collapse and development of shock by keeping him quiet and warm.

Be able to recognize safe and unsafe ice conditions. The first and last stages of ice are the two most dangerous periods of the skating period. Eagerness to get on the newly frozen surface and reluctance to quit it as the skating season ends are the direct causes of most ice accidents. Always have proper equipment available and know the best methods of rescue.

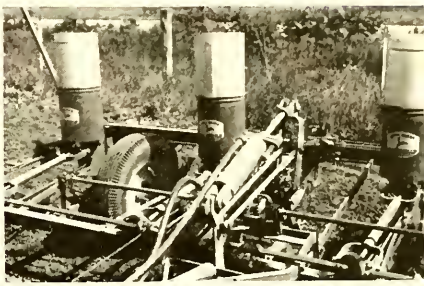
Skating need never be dangerous. By remembering and respecting safety rules, you insure enjoyment and fun. Happy skating! ◆◆◆

IDEAS FOR YOUR FARM

By
A. M. Wettach

This 46- by 58-foot shed on the S. S. Barton farm, Mediapolis, Iowa, has concrete feed bunks built around posts along each side. Hay is stacked inside in winter and fed in bunks. In summer when hay is gone, shed serves as a convenient loafing shed for Barton's herd.

When paper fertilizer bags accumulate on the Clifford Wright farm, Mehaska, Iowa, he puts them through his round hay baler parked in the barnyard. Baled sacks can be sold or disposed of.



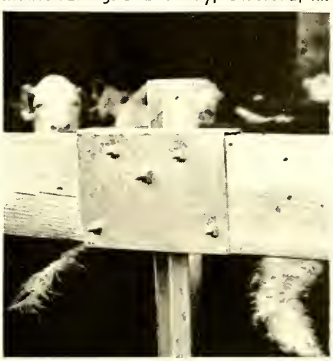
Capacity of these corn planter boxes was doubled by adding a collar of galvanized stove pipe attached with metal screws. Ray Lang, Donnellson, Iowa.

Electrically heated automatic water fountain was placed on sewer tile filled with concrete to keep it free from litter. Hasenclaver, Ft. Madison, Iowa.

Welded rods top and bottom of grain wagon, locked with eye-bolts, permit endgate to open at top, swing down, or at bottom to swing up. Olson, Winfield, Iowa.

Simple, easily attached hitch for a tractor drawbar is particularly useful with corn planter. Made by welding two pieces of steel plate in a T-shape. Stan Mathews farm, Mt. Union, Iowa.

Plates welded from flat piece of sheet metal to two pieces of angle iron hooked over top, bottom of feed bunk planks. This bolted to channel iron posts makes railing. Bob Yordy, Glasford, Ill.



Small pipe nipple welded to your spade shoulder can save boots and shoes. Digging is easier and more comfortable to the foot. Idea from the R. Yordy farm, near Morton, Illinois.

LET'S CHANGE JUNIOR

Down with junior auctions where livestock prices go sky-high, says a group in Ukiah, California. In its place they propose sales based on feed efficiency.

By Ralph Hinds

As told to James Grundman

Champion lambs have brought as much as $18 per pound at junior auctions.

"SEVENTEEN, seventeen . . . Hey, I have seventeen, seventeen . . . Who'll gimme eighteen . . . I have seventeen going once . . . Seventeen going twice . . . Sold!"

To farmers the above figures appear normal for the price paid per pound of a live fat lamb in the summer months. But if he were told that the "seventeen" was "dollars-per-pound" rather than "cents-per-pound" and that this normal $17 lamb sold for $1,700 at a junior livestock auction, he would be amazed.

Many FFA leaders feel that these overpriced "play" auctions are one of the major threats to the junior division livestock programs today.

The prices paid are far above the market price, and the stock can be bought only by business firms with active advertising budgets. Private persons cannot compete against the institutional buyers.

The sad part of the situation, some feel, is that to have the fattest beef or lamb at the auction—and get the highest price—members are putting too much money into the animals. So much that they require ridiculously high prices to come out ahead.

"Is this teaching the future agricultural leaders a realistic approach to the livestock business?" is the question some leaders pose.

The Twelfth District Agricultural Association (Redwood Empire Fair) in Ukiah, California, and leaders in nearby Mendocino County developed a plan that they feel helps solve the problem.

Grand champion steers, such as this one at a leading state fair, have sent bids at junior auctions spiraling so high that only large commercial firms could buy.

They operate a "rate-of-gain" auction based on steer feeding efficiency. For the past two years it has been operated on a trial basis and is called the "Mendocino County Steer Efficiency Gain Trial."

Junior exhibitors benefit through stress placed on management practices involved in the feeding, care, record keeping, cost analysis, and decision-making of the program; through the opportunity to clear a profit without depending on high premium prices; and through a learn-by-doing experience which prepares them for one of California's leading businesses—finishing cattle for slaughter.

The sale provides correct conformation and feeding procedures of the kind that insures tenderness, low trim, and a high percentage of edible beef at a price equal to or below that paid in the open market.

The plan started in 1961 when FFA Advisor Thomas Bowles, Round Valley High School; Rod Shippey, Mendocino County livestock farm advisor; and Ralph Hinds, livestock superintendent of the fair, planned what they hoped would be a "new and improved" junior livestock auction.

The three established a group called the "Mendocino County Efficiency Gain Trial Committee." This committee included themselves, the president of the Mendocino Cattlemen's Association, and neighboring Potter Valley 4-H leader, Allen Carson. These five men established the rules, regulations, and procedures for the trials.

The rules stated that the animals should be purchased from Mendocino County ranchers during the latter part of September or early October, and that they should be in the 400- to 475-pound weight range. The breed was left to the junior buyer, with all choices eligible.

The rules further stated that all animals must be carried through the winter on a maximum of five pounds of grain per day, good quality hay, and available pasture. Accurate records must be kept from the time of purchase until the auction.

At the first auction, 12 steers were sold—10 graded "Choice" and two graded "Good." To curb run-away bidding, the auctioneer stated that he would take bids up to 5 cents over the market price. He explained that the market price for the day was 27 cents—if anyone ran the bid above 32 cents, the steer would be sold to the next lowest bidder.

AUCTIONS

Rate-of-gain officials explained that this kept the sale from getting out of hand and still assured exhibitors a fair profit. However, the primary reason for limited bidding was to prevent a "subsidy action" to the young stockmen, since subsidies are not accepted by adult stockmen.

On April 27 all cattle were assembled in dry-lot corrals at designated points. The next morning after the cattle received a 12-hour shrink, they were weighed under the supervision of the Efficiency Gain Committee members. All steers were tagged and the weights recorded.

From that day the steers were placed on a 112-day full feed period. On August 17, at the end of the feed period, the cattle were again assembled at the designated points for another 12-hour shrink-weigh. Weights and information were again recorded. This last weight was the one used for the sale records.

Each animal's daily rate-of-gain was calculated and carried to the second decimal place. This was done by figuring the total gain of the animals divided by the number of days in the gain period.

The total cost per pound of gain was also figured. This was done by dividing the cost of the gain by the number of pounds of gain. The winter cost was figured in the same way, and by adding these two figures to the original cost of the animal, a "necessary selling price" was found.

Judging of the animals took place on August 25 on the Danish System. The order of the sale was determined by the steer's grade, its ability to put on a fast economical gain, and the exhibitor's ability to present neat and accurate records. The exhibitor of the top steer based on the above criteria won a trophy recognizing his efforts.

Monday following the fair, the cattle were slaughtered. The carcasses were graded by a Federal meat grader and then put on display at the local slaughter plant. The final data was made available for cattlemen, buyers, and other interested persons. It included the carcass grade, dressing percentage, loin eye area, and other important information.

Results of the sale showed a high rate-of-gain of 3.26 pounds per day, an average rate-of-gain of 2.57 pounds per day, an average necessary selling price of 23.8 cents per pound, a high selling price of 32 cents, and a low price of 29.5 cents. The average selling price was 31 cents per pound. The average profit per head totaled $67.10, and the average weight was 960 pounds.

These figures compare favorably with average costs and returns of commercial feedlots, but most important, the young stockmen neither asked for nor received exceptionally high prices, yet still showed a good profit.

The results of the auction showed that junior livestockmen could raise single steers for a price that was equivalent to animals raised on extensive "mass production" feedlot operations.

Moreover, the rate-of-gain trials showed exhibitors that records are as important as winning at the fair. It also showed that management practices involving buying, feeding, care, and decision-making provide greater educational experience than merely feeding and fitting the animals. Above all, the program provided them with an opportunity for a clear, clean profit without absurd premium prices.

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3. Box tops must be sent to d-CON no later than April 1, 1964.

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RETURN TO NATURE

(Continued from Page 53)

"An Indian at the store yesterday told me old Gorst gave his foot a nasty cut with an ax when he was beheading a couple of ringnecks. I'll check when I get back from the city. You take care of things, kid."

Bill muttered to himself at this information. Ringnecks were pheasant and were still not in season. Gorst seemed to take a queer pleasure in breaking the game laws!

He remained outside scanning the sky after Jack left. It was beginning to look more like smoke than haze, and he kept watching as he went about his daily chores. Soon there was no doubt—a forest fire was in the making!

The phone rang shrilly around noon. It was a fire lookout asking for Jack, and when Bill explained his brother's absence, the lookout said, "We can use another man on the fire line, kid."

"Where are you working?"

"The fire started at Dominick's lumber mill and is moving south. If the wind rises, it may be tough going. Good thing no one lives in that area."

He rang off before Bill could reply.

What about old Gorst? The old man didn't have a telephone, but surely he had seen the smoke. He was only a half mile south of Dominick's, and there was small chance that his place would escape, but he had his old rattletrap and could get out.

Bill laced on his boots, keeping one ear cocked for the sound of the old car, but the only noise was that of small animals in the underbrush and birds fleeing the fire. Then suddenly he remembered what Jack had said about the old man's leg!

The hike to Gorst's place was a nightmarish blur to Bill. He made it in half an hour, but he was gasping from smoke and covered with cinders when he arrived.

Gorst was standing by his well. He'd collected every pot and bucket that would hold water, but his eyes were sick with pain and terror. He snarled at Bill when the boy ordered him into the old car.

"Don't try bossin' me, boy! I aim to defend my property."

"Your land will still be here even if it's burned clean."

"What good is land with nothin' on it? It's all I've got; I can't leave!"

"If you come now, we'll have time to get a few of your possessions in the car," Bill told him.

Gorst's chin quivered as he gazed around him at the ramshackle cabin, the withered garden patch, and the thickening storm of ash settling over all. His face was yellow with fear and the poison creeping through his aging body from his infected leg.

"I won't go. You can't make me!"

It was almost a sob, but to Bill it was

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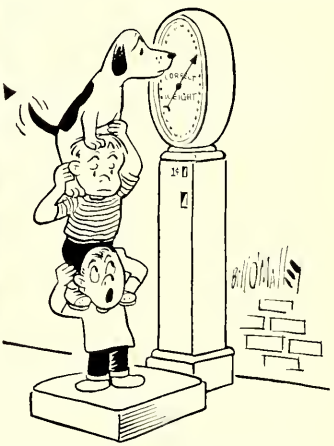

"Larry—one of us should be up there. I don't think Fido knows numbers too well."

the last snapping string of a discordant instrument. Anger burned in him as hotly as the tongues of flame lapping at the resin-soaked pines to the north. He turned away.

Suddenly it was as though Jack was beside him, his arm across Bill's shoulders. Jack's voice seemed to be repeating something he had told Bill several times before. "We're supposed to be superior to animals because God gave us imagination and a sense of brotherly love."

It didn't take much imagination to realize what would happen to old Gorst if he remained here, but getting him to leave was another matter. His stubbornness was almost unsurmountable.

"No, I can't make you go," Bill said softly. "Stay here if you will. They need me on the fire line and I'm going."

He headed for the road again and turned only when he heard Gorst's shuffling limp behind him and the beaten voice saying, "Wait, boy. Wait for me."

Three weeks later the station wagon headed north. The air was clear now with a fresh breeze blowing off the bay. Bill drove slowly along the old logging trail that headed into the mountain valley. In the rear compartment the fawn stood, swaying with the motion of the car, his head resting on the back of the seat near Bill's shoulder.

Mighty strange how things worked out . . . Old Gorst had lost his leg below the knee, but he was feeling fine, and a distant relative had turned up to care for him. Better still, the state had offered him a good price for his land, and now it would be turned into more game preserve. Bill felt pretty good about that.

At the end of the valley the track ended. Bill stopped the car and helped the fawn out. A herd grazed a quarter mile distant, moving slowly toward the mountains as they greedily nibbled the juicy huckleberries.

Bill walked toward them cautiously, the fawn by his side. Then he stopped. The fawn wandered on, its nose lifted to the wind as it caught the musky deer scent; then it looked back at him.

Bill felt a sharp pang of regret. If he called now, it would return but he stood silent, unmoving. Gradually the deer moved inland with the others. Now it was lost to him, absorbed by its own kind. Perhaps on a winter night when the cold was crackling through the timber and the stars were brilliant over the western range it would recall the warm touch of human hands.

He knew that he would never forget the brown eyes that had gazed so trustingly into his own.

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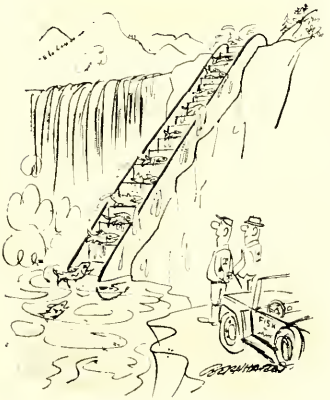
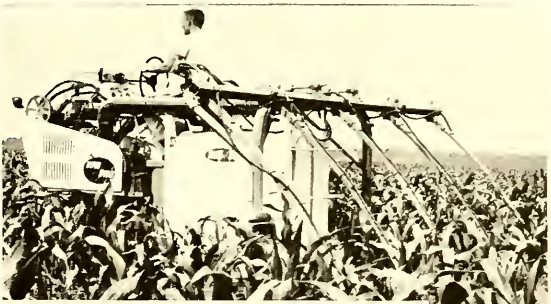


"Frankly, won't an escalator spoil 'em?"



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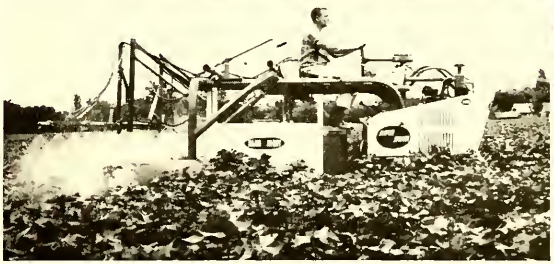

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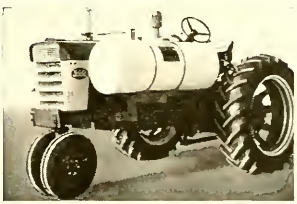

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Panfishing Thru

You don't need expensive equipment or special skills to get your fair share of the catch on that nearby frozen lake or stream this winter.

By
E. M. Leffert

WHEN WINTER winds howl and temperatures push down around the zero mark, the nation's ice-fishing fans take to the frozen lakes by the thousands to flip fat, over-sized perch or bluegills on the ice to be fast-frozen. For everyone inclined toward outdoor living, ice fishing for panfish is a healthful and exciting experience.

Luckily, first-time ice fishermen can get a good start without expensive equipment or special skills. If you don't know a professional advisor, here are some tips that will help bring in catches again and again—in warm comfort.

Good foundation gear for winter angling can be a suit of warm underwear. Footwear is next. If you want to make use of rubber overshoes, you will need two pairs of wool socks. Veteran ice fishermen recommend that one pair be light and soft and the other heavy and tough.

Be sure to provide wool pants, shirt, and a warm coat. On mild days the Army surplus jackets do the job well enough, and they come equipped with a hood to ward off occasional gusts of chilly air. Large, roomy mittens outserve gloves every time. Gloves just don't measure up. A cap with ear flaps is a must. And don't forget to pack your summer sunglasses. The all-day glare from reflecting ice can be a real danger.

Every ice fisherman needs a lot of gear. One of the simplest ways to transport it is with a sled. Common apple boxes are good additions because they double as seats later. Also, a lighted lantern placed inside will result in enough of a furnace to warm up your legs and feet. Someone in your party will need an ice chisel or "spud" to chop the holes to fish through. Be sure to attach a strong cord or chain to the tool so it won't slip from your fingers on the last chop that opens the hole for use. And keep in mind that the "spud" will cut through a shoe or boot as easily as ice.

Monofilament lines are best to use because they are almost invisible in the water. They are a big help in "zeroing in" on the big ones. (Fish don't get big by being dumb.) Short, two-foot-long jigging poles can be purchased for under a dollar each—or you can make your own. Simply saw the tip from an old cane pole. If you make your own rods, tape a six-inch piece of light wood along the side of each. In addition to providing a place to wrap excess line, they provide a handy way to measure exactly how much line is being used, and proper depth is of the utmost importance.

Small split-shot sinkers are ideal, since they can be used again and again. A dime will buy all you will need. A shot or two should be placed about 18 feet from the hook. Whether a cork or small float is used to help indicate bites is strictly up to you. Jigging rods are handy, proven fish-getters because the angler can impart necessary action to his offering.

But there are disadvantages, too. Someone needs to hold the rod or be nearby to watch the tell-tale float. Should you use any of the commercially made "tip-ups" instead, you are free to roam the lake and still catch fish. "Tip-ups" are usually spring-triggered units

"They want to know what TV show we're watching."

The Ice

Excellent panfish bait is larvae of the stem weevils, drone flies, and beetles.

that call attention to a strike by means of flags or bells. Underwater reel types are best because the action never becomes fouled with ice. But be sure to check the regulations about the number of hooks or tip-ups permitted each person.

The right bait seems to be a greater problem than finding a good place to fish. When the panfish are biting, anything can take them. But when the biting is not so good, "know-how" can produce astonishing returns. If an angler had to confine himself to one type, the live minnow would be hard to surpass. Goldenrod grubs, found in the swollen stems of the plant are deadly killers for bluegills, sunfish, and perch. Mealworms, corn borers, bee larvae, and the immature forms of the Syrphus fly are excellent, too.

Substitutes can be used successfully, also. Tiny strips of pork rind attached to artificial dry or wet flies oftentimes produce good catches. And thousands of yellow perch are caught by simply baiting small hooks with the eyes of other freshly caught perch. Oldtimers say, "Check the stomach contents of the first perch you catch." If you're a little squeamish at first, ask your neighbor what the scoop is.

Four inches of sound ice is more than enough to support you and several other large groups in safety. A good thing to keep in mind is that water currents and springs combine to change the uniform thickness of ice at a given spot.

Don't make the mistake of overlooking the obvious in selecting a fishing spot. The nearby lake or stream can oftentimes provide as many fish as a lake a hundred or more miles away. Thick ice and deep snow on a small lake limit the oxygen content of the water, and fish are very sluggish. Little lakes are not good prospects, therefore. Stick to the larger waters—the returns are usually more rewarding. Good, up-to-date fishing information can be gotten from the local game warden, some newspapers, and local sporting goods stores.

Assuming you locate yourself in a cove or bay, you will want to punch out a number of criss-crossing holes throughout the whole area. Try a different bait at each spot. You should strike the combination that will deliver a bonanza of winter thrills. Many a potential hot spot has been lost because of the urge to move to a different spot as soon as the fish stop biting. Be patient.

Ice fishing has proved to be a winter sport that can be enjoyed by all. But remember, it's up to you to be at the right place, at the right time with the right equipment and know-how if you want to get your share of this invigorating winter sport. The fish will show up by themselves.

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I certify that the statements made by me above are correct and complete.

V. STANLEY ALLEN,
Business Manager.

FLAT TAIL

By Ewart Autry

IT WAS A dark, cloudy afternoon when I crawled into a dense canebreak and fashioned an opening to look down on a damaged beaver dam spanning the Little Tippah River. Water was pouring through a 10-foot gap in the dam. It had taken three men half a day with picks, shovels, and axes to make that gap so the backwater would be drained off their fields.

I was there to see a big shot, four-legged engineer at work. I knew the beavers would not let the gap remain in their dam. There was a good chance they would do some work today.

Every beaver crew has its foreman. A better name for him would be chief engineer. He's the fellow with the know-how, the big shot who does the planning and sees that everything is done according to specifications.

I had been there an hour before a head appeared from under a bank 50 yards upstream, followed by another and then another until there were eight heads gliding smoothly toward the dam. Seven beavers climbed to the top of the undamaged portion of the dam. There were four adults and three half-grown youngsters. One of the adults was large, probably weighing as much as 45 pounds. However, he could not be classed as a local giant, since a 62-pounder had been trapped less than a mile away.

There had been eight heads coming downstream, but there were only seven beavers on the dam. I spotted the other one swimming around the break in the dam. Fighting the swift current, he inspected it from the upstream side, then rode the current to the downstream side and continued his inspection.

After about 10 minutes he climbed to the top of the dam. He was the smallest of the adults, but his actions and those of the others immediately pinpointed him as the boss—the chief engineer. The others gathered around him respectfully. There were no sounds—not even a grunt—but it was quite evident that he was speaking to them in a language they readily understood. He gave no signs, made no gestures and, if there were a sound, it was not within the range of my hearing.

But his crew understood. The conference lasted not more than two minutes; then there was a rapid scattering, each to his assigned task. The biggest one swam across and came out on the bank only a few yards upstream from me. Carefully he examined a growth of young birches, finally selecting a four-inch one which leaned toward the water. Sitting back on his haunches with his front feet reaching upward to touch the tree on each side, he began to slash the trunk with his sharp teeth.

In the meantime, the others, all except the engineer, were floating limbs and small logs from upstream. Instead of coming straight into the levee break where the water was swift, they'd approach it from the sides. When almost against the levee, two or more of them would ride the limb or log to the bottom of the stream and remain submerged for several minutes. When they surfaced, there would be no sign of the

ENGINEERS

log or limb they had carried under. Evidently they were fastening it into the sides of the old levee or plastering it down with mud.

And the chief engineer wasn't idle. Occasionally he would dive from the levee and stay down for two or three minutes. No doubt he was inspecting the underwater work. The rest of the time he missed no detail of the surface work. I wondered how he had become chief engineer of this beaver crew. Had he taken special training under some wise old beaver? Or had he just been born with special talents which the others recognized?

The youngsters of this beaver crew were inclined to mix a little play with their work. Once, when three of them were floating a log toward the dam, they began a game of tag by chasing each other over and under the log. The engineer watched them for a moment, then plunged into the water and swam toward them. But they were not to be caught napping. Before he was half way to them, they went back to work with a great show of zeal. He turned immediately and swam back to the levee.

When the old tree cutter's birch went tumbling into the creek, the entire crew gathered around and began to cut the limbs and float them to the levee break. But the old tree cutter took no part in this. He immediately began to cut another tree. This time he selected one which was fully six inches in diameter.

The intense labor of the beaver crew was already beginning to have its effect on the rushing water. When I first arrived, it was going through with a swishing sound. Now the swishing was gone. In its depths it was beginning to feel the restraining work of the beavers.

After watching the water crew sink birch limbs for several minutes, I decided to take another look at my old tree cutter. It dawned on me that the six-inch tree he was cutting would fall parallel to the stream and that its top would come tumbling right into my hiding place. I had to move, but I dreaded the risk of pulling down the curtain on one of the most interesting scenes I had ever witnessed.

My best route was to crawl back from the stream. At my first move one of the youngsters floating a limb saw me. His flat tail came down on the water with a sharp crack almost like a rifle shot. The beavers in the water disappeared immediately. My old tree cutter scurried to the brink and plunged in. The last to disappear was the chief engineer. Perhaps he was concerned with the safety of his crew.

I knew they would not return until after night, so I went home. The next day the break had been completely sealed. It was likely that human beings would once again break the levee, but there was a wise, flat-tailed engineer who would know what to do about it. He and his crew would probably repair the breaks over and over until man threw up his hands in dismay and said, "You can neither outfigure nor outwork a beaver."

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History of the Breed

The Suffolk

NEAR THE turn of the nineteenth century in the southeastern counties of Norfolk, Suffolk, and Essex in England, a new breed of sheep began to find its place in agriculture. The upland coastal regions here were rugged with sparse forage, and in this dry, windy area a new breed was needed to meet consumers' and farmers' demands.

As far back as farmers could remember, the Norfolk Horned sheep had roamed these moors. They were black-faced, heavily horned, and as muscular as the area was rugged. No one could deny that the Norfolk wasn't adapted to its environment, but then progressive sheepman disliked the long legs, flat sides, and wild nature that was so characteristic of Norfolks.

Planned crossings of the old Southdown rams with these Norfolk ewes produced a great improvement over either of the parents, and the modern-day Suffolk breed was born. As early as 1810, English farmers began to recognize the Suffolk as a breed. The Southdown ram—with its fine bones, dark face, and hornless features—gave its qualities of meatiness and good wool to the Suffolk offspring. The wild and hardy Norfolks became scarce and finally extinct.

The Suffolk ewes were excellent nurses and very prolific. Twins were common with the new breed. Southdown blood improved the carcass, increased the early maturing qualities, and brought a new demand for mutton. Here was one of our heavier sheep breeds, noted throughout the sheep world now as an early-maturing and especially hardy breed.

Separate classes were established for the new breed in 1859 by the Suffolk Agricultural Society, and 27 years later, in 1886, the English Royal Agricultural Society formally recognized the breed.

A visiting American sheepman, G. B. Streeter of Chazy, New York, was so impressed by the Suffolks he saw on a visit to Joseph Smith's farm in Hasketon, England, in 1887 that the following year he imported several ewes. One of those Suffolk ewes, a 21-month-old beauty, weighed exactly 200 pounds when she came off the ship in New York in 1888. The following spring Streeter had a 200 percent lamb crop and farmers in his New York community became envious of the new sheep breed from England.

But it wasn't until 1919 that the Suffolk made its appearance in the western states where it is common today. That year the English Suffolk Sheep Society donated three ewes and two rams to the University of Idaho for their experimental farm. On the way across the country, one of the rams was sold at the National Ram Sale in Salt Lake City, Utah. After spirited bidding, a prominent Idaho breeder paid $500 for the ram and introduced the breed's qualities to western sheepmen.

Today you'll find Suffolks from Maine to California. They have been called our most popular breed of sheep because of their universal appeal to both the producer and the packer. Modern Suffolks are large sheep, the rams weighing from 250 to 350 pounds and the ewes averaging 225 pounds at maturity. They are fast-gaining, early-maturing, and hardy sheep with excellent mutton quality. The Suffolk ram is especially popular for cross-breeding in the western range country and can be found wherever mutton lambs are produced in the world.

Suffolks are hornless and have no wool on the head or legs. In fact, they can be quickly spotted by their black heads and legs covered with fine hair. You can count over 38,000 Suffolk registrations in the U.S. to date, according to the breed associations—the National Suffolk Sheep Association of Columbia, Missouri, and the American Suffolk Sheep Society of Moscow, Idaho.

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Sportrait

By Stan Allen

ONE OF THE great quarterbacks in pro football was once asked not to sit in the section of a jet airliner that was reserved for his team. The stewardess could hardly be blamed, though, as Y. A. Tittle looks like anything but a pro quarterback.

After 16 seasons of the professional wars, Tittle is beginning to show some wear. He doesn't look as tall as his 6-foot height or show his 192 pounds, and his premature baldness makes him look older. Yet the 1963 season was his best, and he led the New York Giants to their third straight Eastern Division title. He completed 221 out of 367 passes, gained 3,145 yards and 36 touchdowns.

Yelberton Abraham Tittle was born in Marshall, Texas, and reportedly was throwing a football as soon as he could hold one. He was an All-State halfback at Marshall High School in 1943 and their most valuable player for three years. He also found time to play baseball and basketball. His outstanding play in football earned him a scholarship to Louisiana State University.

Y. A. made the L.S.U. varsity in his Freshman year and was No. 1 quarterback at 17. He started at the tailback slot in a single wing offense but found his spot when the Tigers switched to a T-formation. He won four letters with the Tigers and was an All-Southeastern pick in 1946 and '47. He was selected to play in two Blue-Gray games and was drafted by both the Detroit Lions of the National Football League and the Cleveland Browns of the old All-America Football Conference. He signed with the Browns but was traded to the Baltimore Colts before playing a game.

He broke four AAC records in his first game with Baltimore, gaining 354 yards, and was the league's outstanding rookie in 1948. Baltimore was disbanded in 1950, and Tittle went to the San Francisco 49'ers. He took over the No. 1 job from the great Frankie Albert in his second year and was a mainstay on the 49'ers for 10 years. United Press International named him Pro Player of the Year in 1957. Injuries and Coach Red Hickey's shotgun formation made Y. A. expendable, and he was traded to the New York Giants in 1960.

Y. A. Tittle, N. Y. Giants' quarterback.

For a 34-year-old veteran of 12 seasons, this was a big temptation to hang up the spikes, but Tittle has always elected to try the big challenge. The move was just what he needed, as the last three years have been the finest of his career. He has completed 584 passes in 1,027 attempts for 8,641 yards and 86 touchdowns in leading the Giants to three Eastern Division titles. He set a league record of 33 TD passes in 1962, and broke it this season with 36. He threw seven TD passes in one game against the Washington Redskins in '62 to tie another league record.

In NFL competition Tittle is No. 1 in all passing departments. He has 1,971 completions, gaining 26,541 yards and 202 touchdowns. If he could count his two years in the AAC, he would have a 16-season total of 2,280 completed passes, more than any quarterback in pro football history. His great passing and inspired field generalship have sparked the Giants to 33 victories in 42 games.

He won the Jim Thorpe Trophy as pro football's outstanding player in '61 and was a unanimous selection to the All-Pro Team the past three seasons. The big honor has always escaped Tittle as his teams have never won a World Championship game. The Bears got him out of the championship game early this season, or this could have been the year. You can bet this 37-year-old veteran will be back to give it another try next season.

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Gene Hager
Waseca, Minnesota

Judge: *"You admit you entered the house by the rear door at two o'clock in the morning. What business had you there at that hour of the night?"*

Prisoner: *"I thought it was my own house, your Honor."*

Judge: *"Then why did you, when this lady approached, leap through the window?"*

Prisoner: *"I thought it was my wife."*

Dean Tyler
Alexandria, Louisiana

John: *"What did the balloon say to the pin?"*

Sandra: *"I don't know."*

John: *"Hi, buster."*

Tim Strickland
Whigham, Georgia

"Oh, I guess you can say we'll have a pretty good season."

Charlie, the Green Hand

"I'm rehearsing for the public speaking contest. Maybe I'm too forceful."

Old Man: *"Yes, sir, I'll be 90 tomorrow and I haven't an enemy in the world."*

Visitor: *"A beautiful thought."*

Old Man: *"Yes, sir. I've outlived them all!"*

LaVaughn Backstrom
New Augusta, Mississippi

Ag Instructor: *"Bill, what are your plans for an FFA project this year?"*

Bill: *"A talking elephant."*

Ag Instructor (going along with the joke): *"A talking elephant? Isn't that a rather strange project?"*

Bill: *"Yes."*

Ag Instructor: *"How is he going to make you any money?"*

Bill: *"I plan to charge admission, and people can hear 'real' elephant jokes!"*

Floyd Rodrick
Sumner, Illinois

Tom: *"What did one fisherman say to the other fisherman in the middle of the desert?"*

Curly: *"I don't know. What?"*

Tom: *"Long time no sea."*

Timothy Grabeel
Holden, Missouri

The television influence: *"Sorry, the doctor can't see you this afternoon; he's rehearsing."*

Phillip White
Montrose, Arkansas

Bob: *"What is dark underneath, white on top, and very warm in hot weather?"*

Tom: *"A wolf in sheep's clothing."*

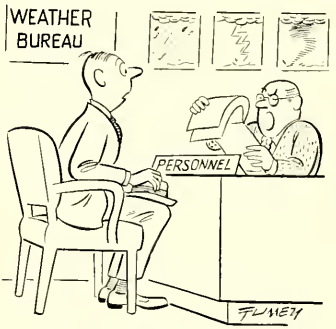
Walter Haugen
Kenyon, Minnesota

Girl (on phone): *"No, Ann isn't here. This is her blond, attractive, blue-eyed, 110-pound, five-foot-four sister."*

Sue Gustafson
Adair, Iowa

Nostalgia: An old-timer is one who remembers when girls who had nothing to wear stayed home.

Shieldia Williams
Proctor, West Virginia



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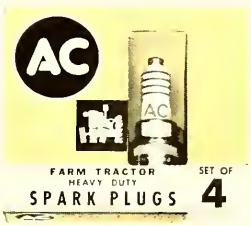

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